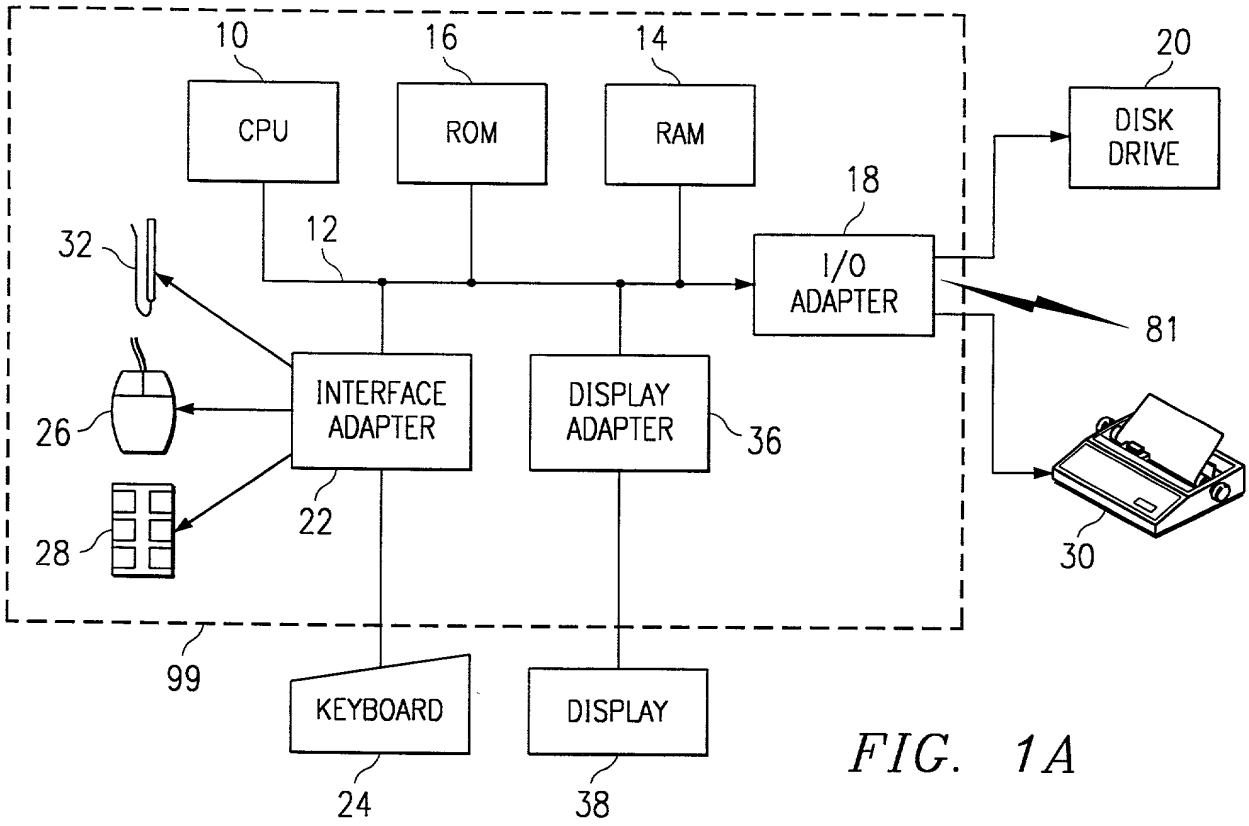

10
CPU
16
ROM
14
RAM
20
DISK DRIVE
18
I/O ADAPTER
12
32
81
INTERFACE ADAPTER
DISPLAY ADAPTER
36
26
22
28
30
99
KEYBOARD
DISPLAY
24
38

FIG. 1A

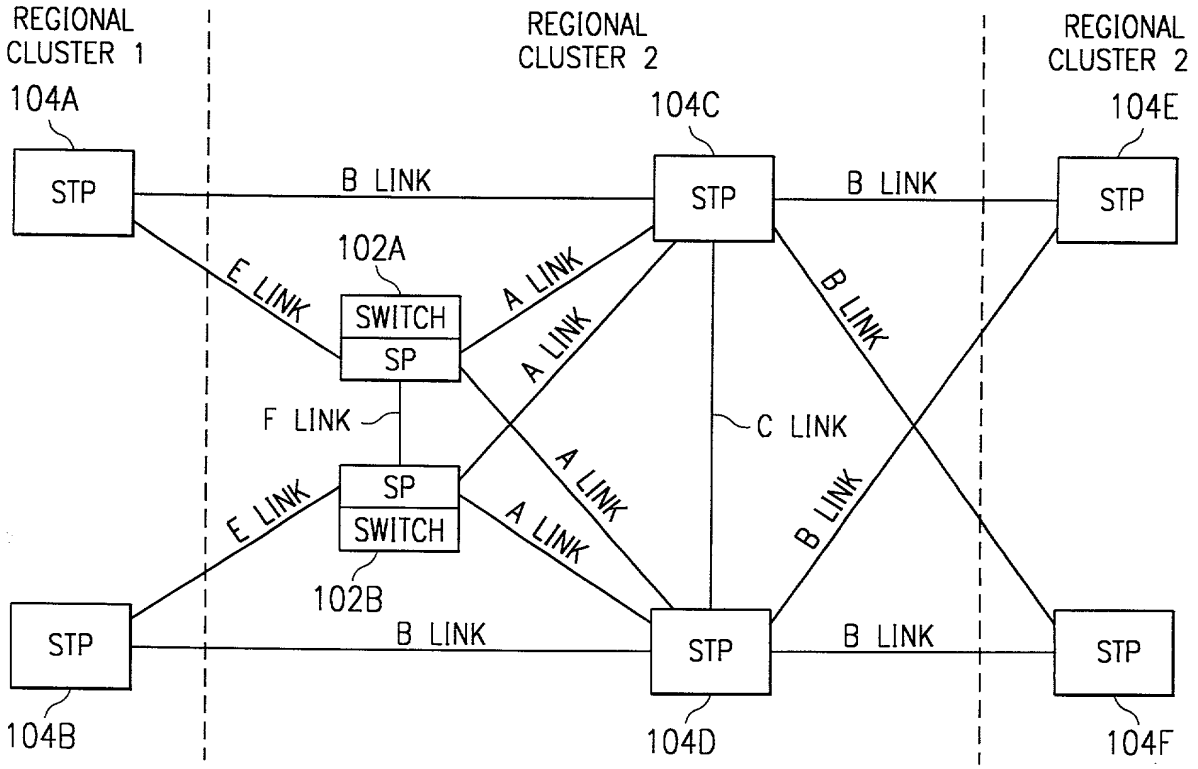

REGIONAL CLUSTER 1
REGIONAL CLUSTER 2
REGIONAL CLUSTER 2
104A
104C
104E
STP
B LINK
STP
B LINK
STP
102A
E LINK
SWITCH
SP
A LINK
A LINK
B LINK
F LINK
C LINK
SP
SWITCH
E LINK
A LINK
A LINK
B LINK
102B
STP
B LINK
STP
B LINK
STP
104B
104D
104F

FIG. 1B

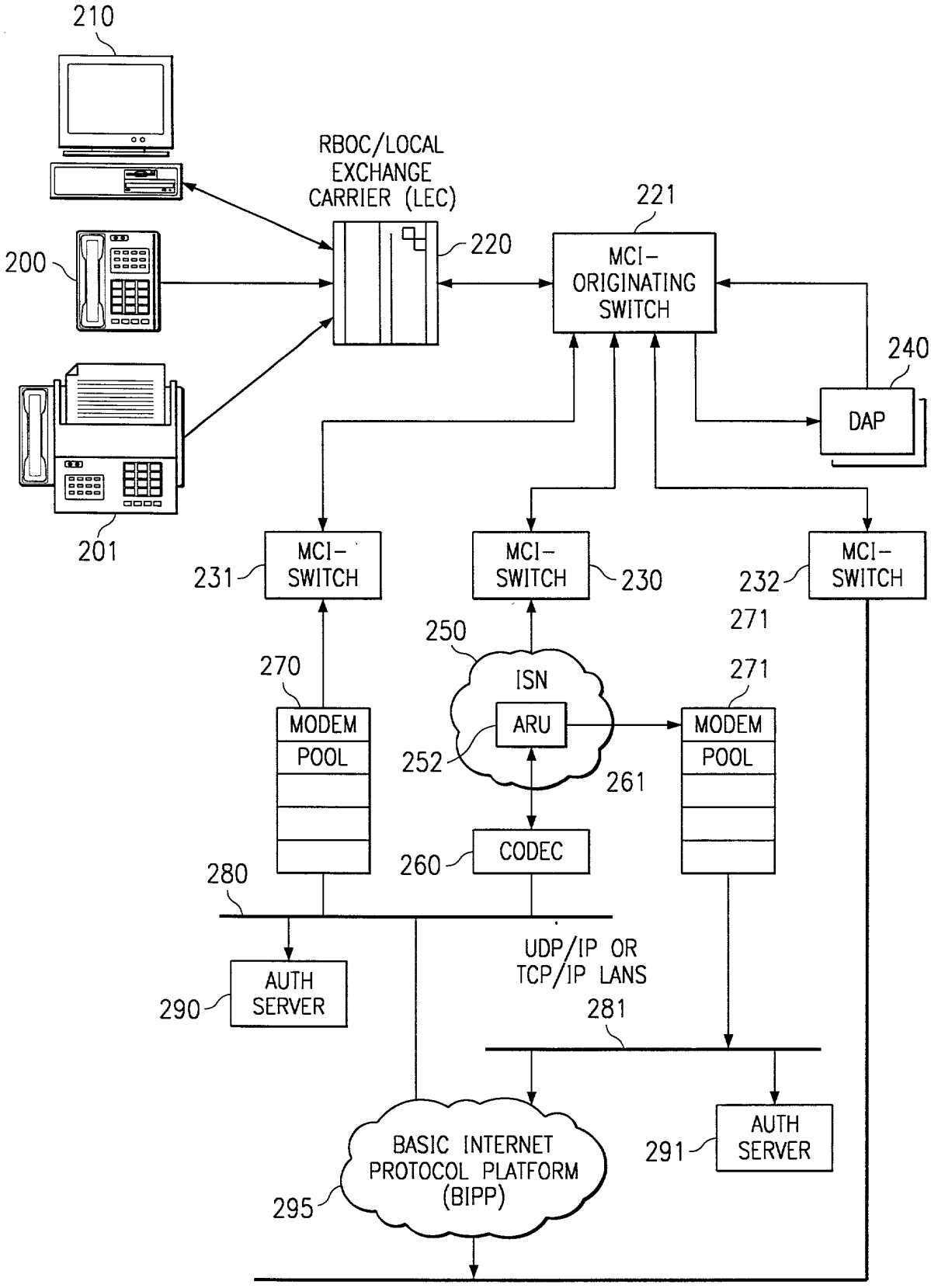

210
RBOC/LOCAL EXCHANGE CARRIER (LEC)
221
200
220
MCI– ORIGINATING SWITCH
240
DAP
201
231
MCI– SWITCH
MCI– SWITCH
230
232
MCI– SWITCH
271
250
270
ISN
271
MODEM POOL
ARU
MODEM POOL
252
261
CODEC
260
280
UDP/IP OR TCP/IP LANS
AUTH SERVER
290
281
AUTH SERVER
291
BASIC INTERNET PROTOCOL PLATFORM (BIPP)
295

FIG. 1C

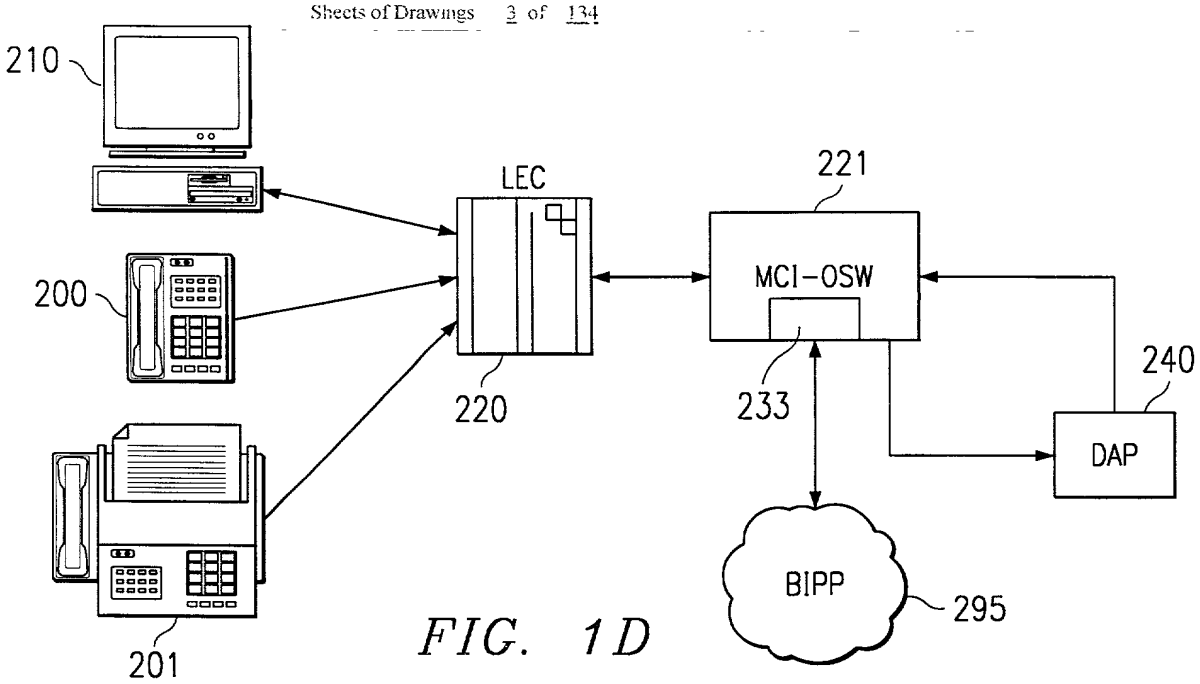

210
200
201
LEC
220
221
MCI-OSW
233
240
DAP
BIPP
295

FIG. 1D

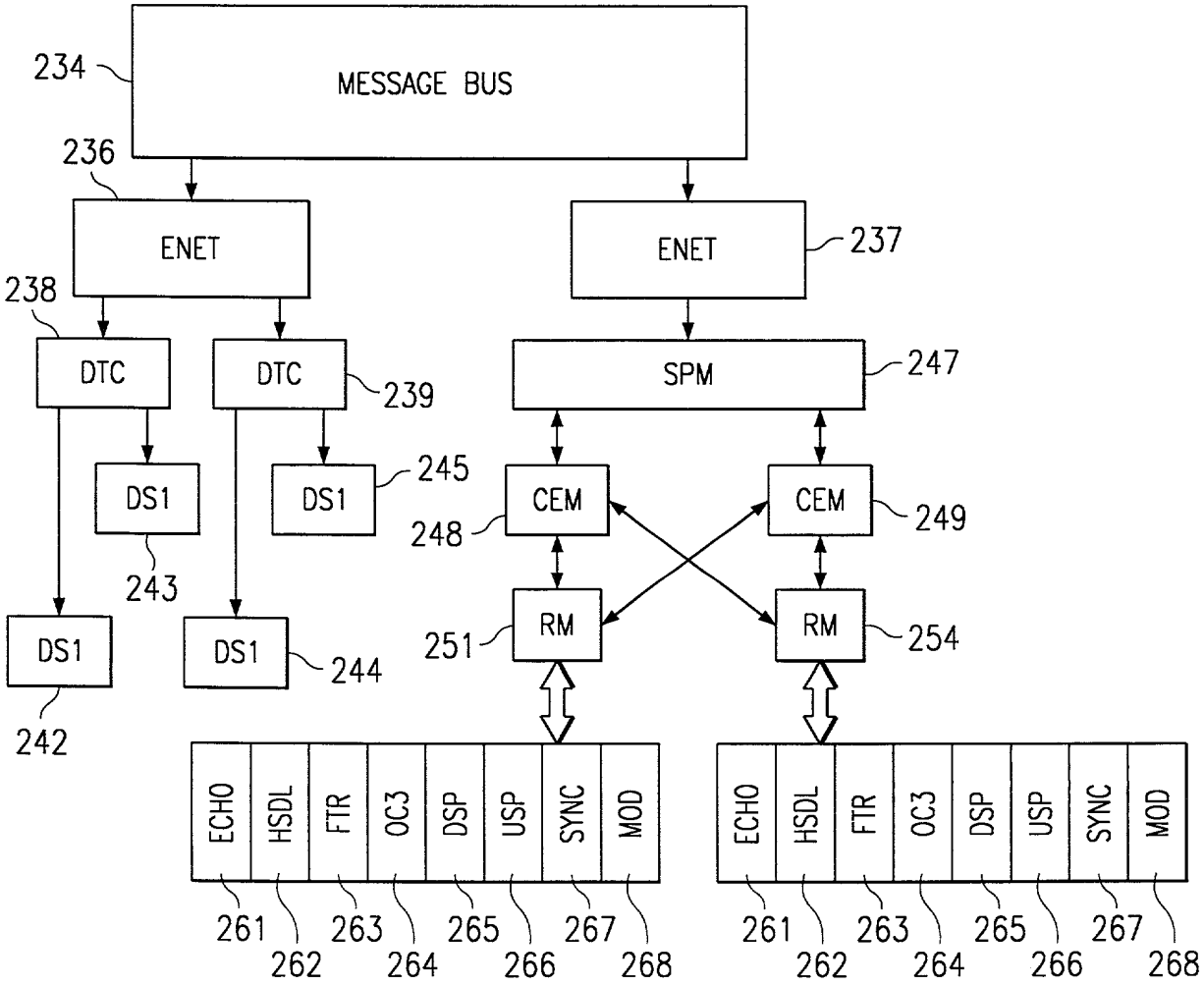

234
MESSAGE BUS
236
ENET
ENET
237
238
DTC
DTC
239
SPM
247
DS1
DS1
245
CEM
CEM
248
249
243
DS1
DS1
244
RM
RM
251
254
242
ECHO
HSDL
FTR
OC3
DSP
USP
SYNC
MOD
261
262
263
264
265
266
267
268

FIG. 1E

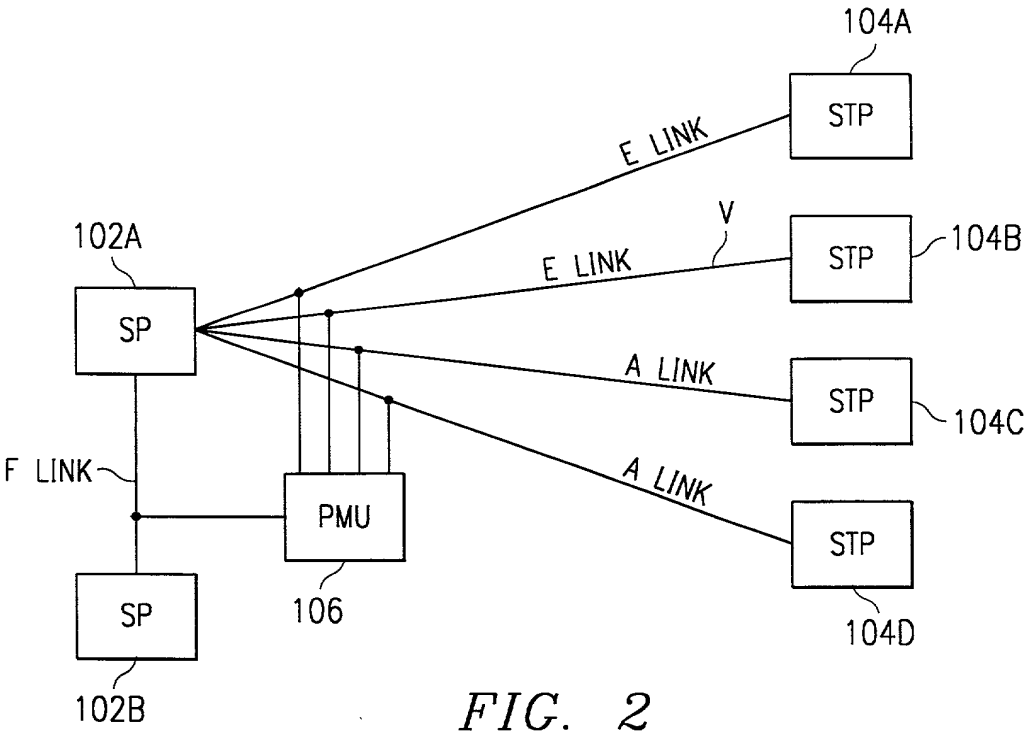

104A
STP
E LINK
V
E LINK
STP
104B
102A
SP
A LINK
STP
104C
F LINK
PMU
A LINK
STP
SP
106
104D
102B

FIG. 2

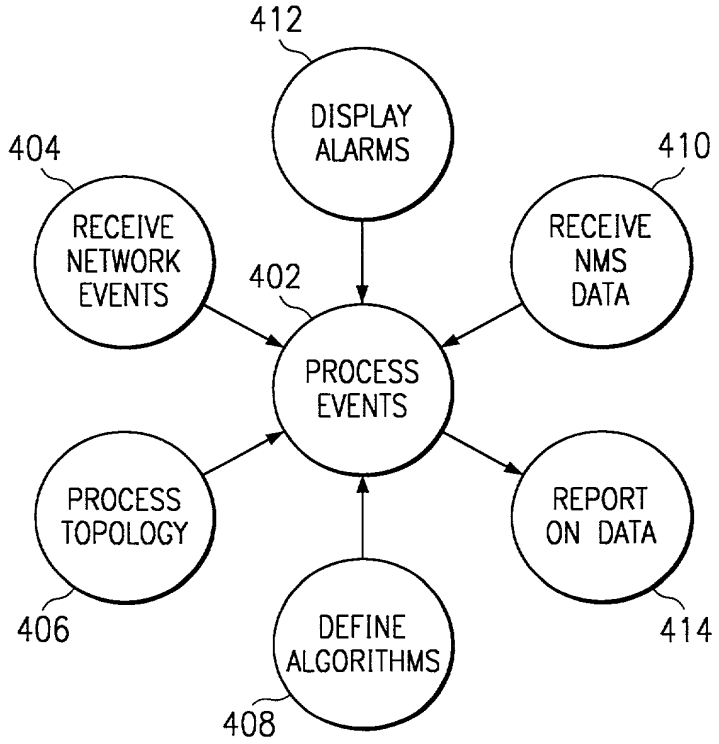

412
DISPLAY ALARMS
404
410
RECEIVE NETWORK EVENTS
RECEIVE NMS DATA
402
PROCESS EVENTS
PROCESS TOPOLOGY
REPORT ON DATA
406
414
DEFINE ALGORITHMS
408

FIG. 4

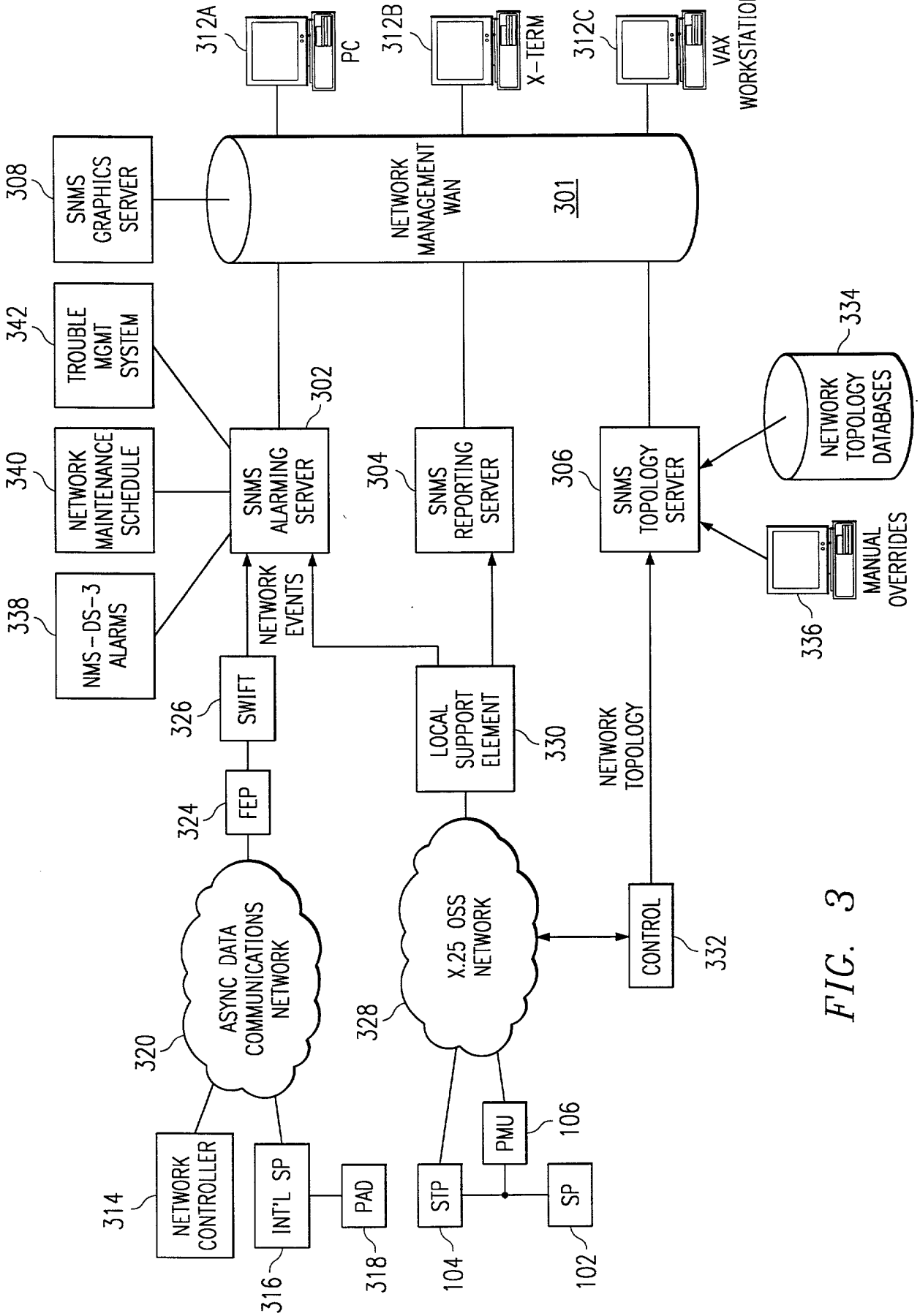

312A
PC
312B
X-TERM
312C
VAX WORKSTATION
308
SNMS GRAPHICS SERVER
NETWORK MANAGEMENT WAN
301
342
TROUBLE MGMT SYSTEM
340
NETWORK MAINTENANCE SCHEDULE
338
NMS-DS-3 ALARMS
302
SNMS ALARMING SERVER
304
SNMS REPORTING SERVER
306
SNMS TOPOLOGY SERVER
334
NETWORK TOPOLOGY DATABASES
336
MANUAL OVERRIDES
NETWORK EVENTS
326
SWIFT
324
FEP
320
ASYNC DATA COMMUNICATIONS NETWORK
314
NETWORK CONTROLLER
316
INT'L SP
318
PAD
LOCAL SUPPORT ELEMENT
330
328
X.25 OSS NETWORK
104
STP
106
PMU
102
SP
NETWORK TOPOLOGY
CONTROL
332

FIG. 3

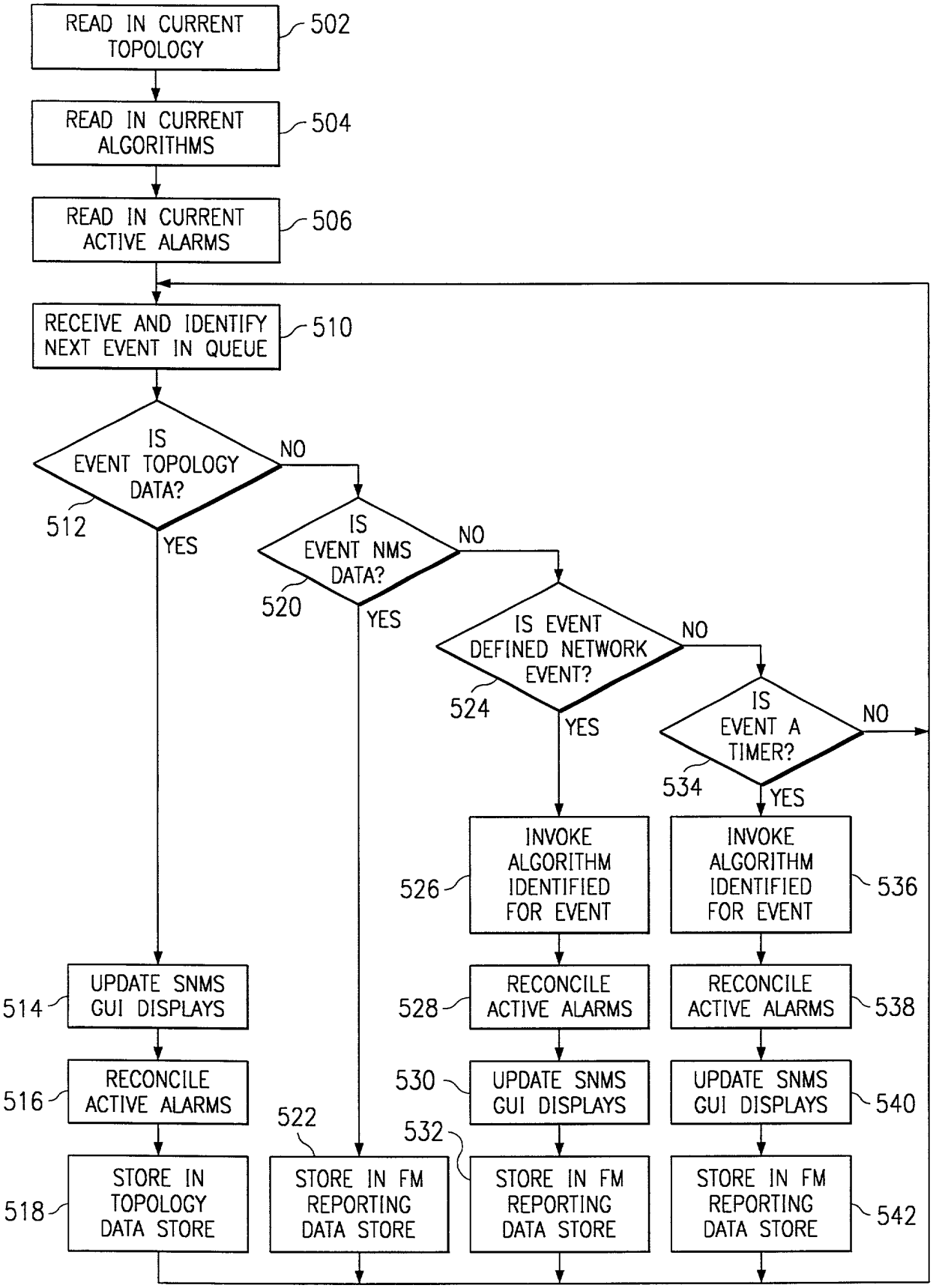
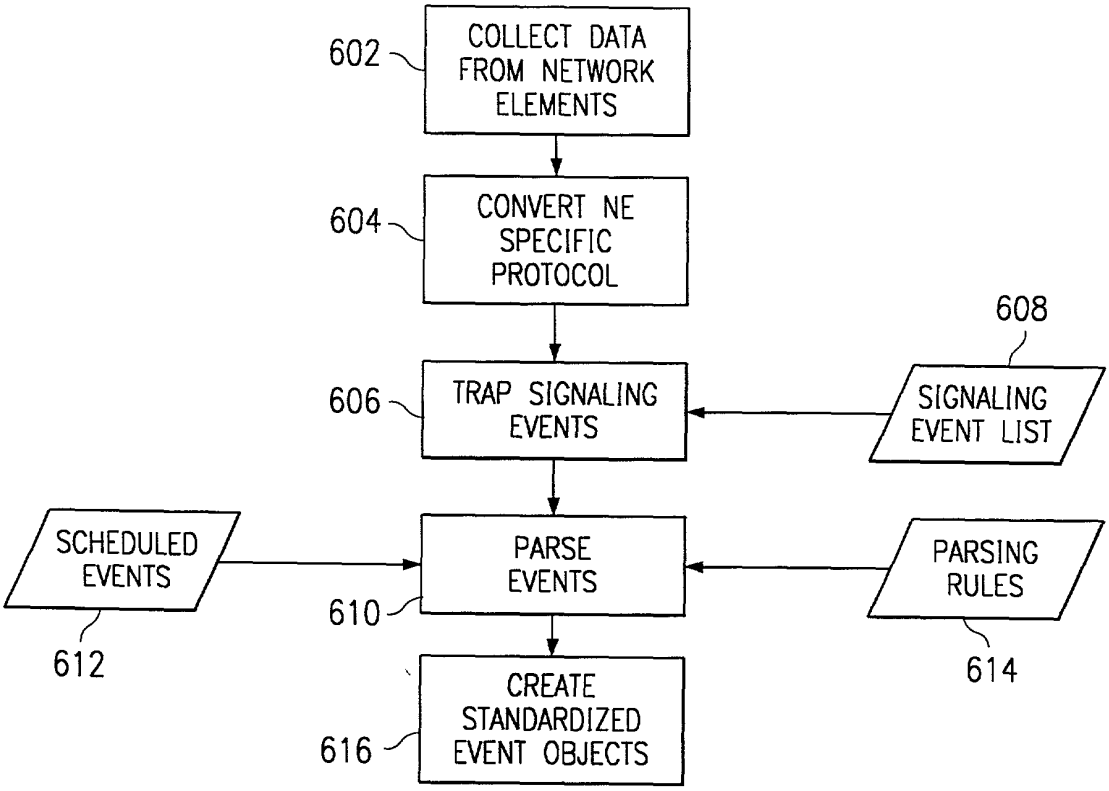

READ IN CURRENT TOPOLOGY
502
READ IN CURRENT ALGORITHMS
504
READ IN CURRENT ACTIVE ALARMS
506
RECEIVE AND IDENTIFY NEXT EVENT IN QUEUE
510
IS EVENT TOPOLOGY DATA?
512
NO
YES
IS EVENT NMS DATA?
520
NO
YES
IS EVENT DEFINED NETWORK EVENT?
524
NO
YES
IS EVENT A TIMER?
534
NO
YES
INVOKE ALGORITHM IDENTIFIED FOR EVENT
526
INVOKE ALGORITHM IDENTIFIED FOR EVENT
536
UPDATE SNMS GUI DISPLAYS
514
RECONCILE ACTIVE ALARMS
528
RECONCILE ACTIVE ALARMS
538
RECONCILE ACTIVE ALARMS
516
UPDATE SNMS GUI DISPLAYS
530
UPDATE SNMS GUI DISPLAYS
540
STORE IN TOPOLOGY DATA STORE
518
STORE IN FM REPORTING DATA STORE
522
STORE IN FM REPORTING DATA STORE
532
STORE IN FM REPORTING DATA STORE
542

FIG. 5


602
COLLECT DATA FROM NETWORK ELEMENTS
604
CONVERT NE SPECIFIC PROTOCOL
606
TRAP SIGNALING EVENTS
608
SIGNALING EVENT LIST
SCHEDULED EVENTS
612
PARSE EVENTS
610
PARSING RULES
614
CREATE STANDARDIZED EVENT OBJECTS
616

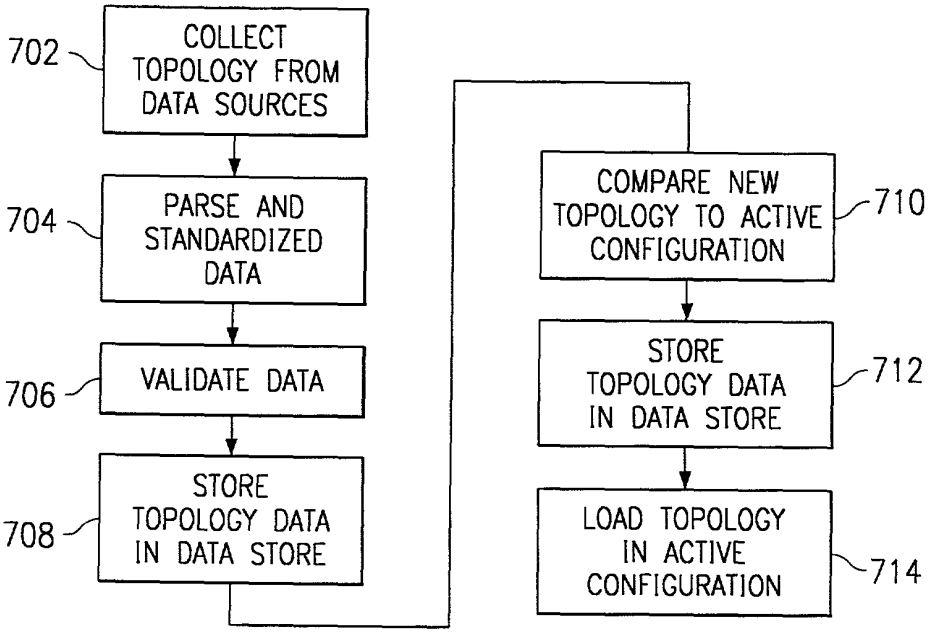

702
COLLECT TOPOLOGY FROM DATA SOURCES
704
PARSE AND STANDARDIZED DATA
706
VALIDATE DATA
708
STORE TOPOLOGY DATA IN DATA STORE
COMPARE NEW TOPOLOGY TO ACTIVE CONFIGURATION
710
STORE TOPOLOGY DATA IN DATA STORE
712
LOAD TOPOLOGY IN ACTIVE CONFIGURATION
714

FIG. 7

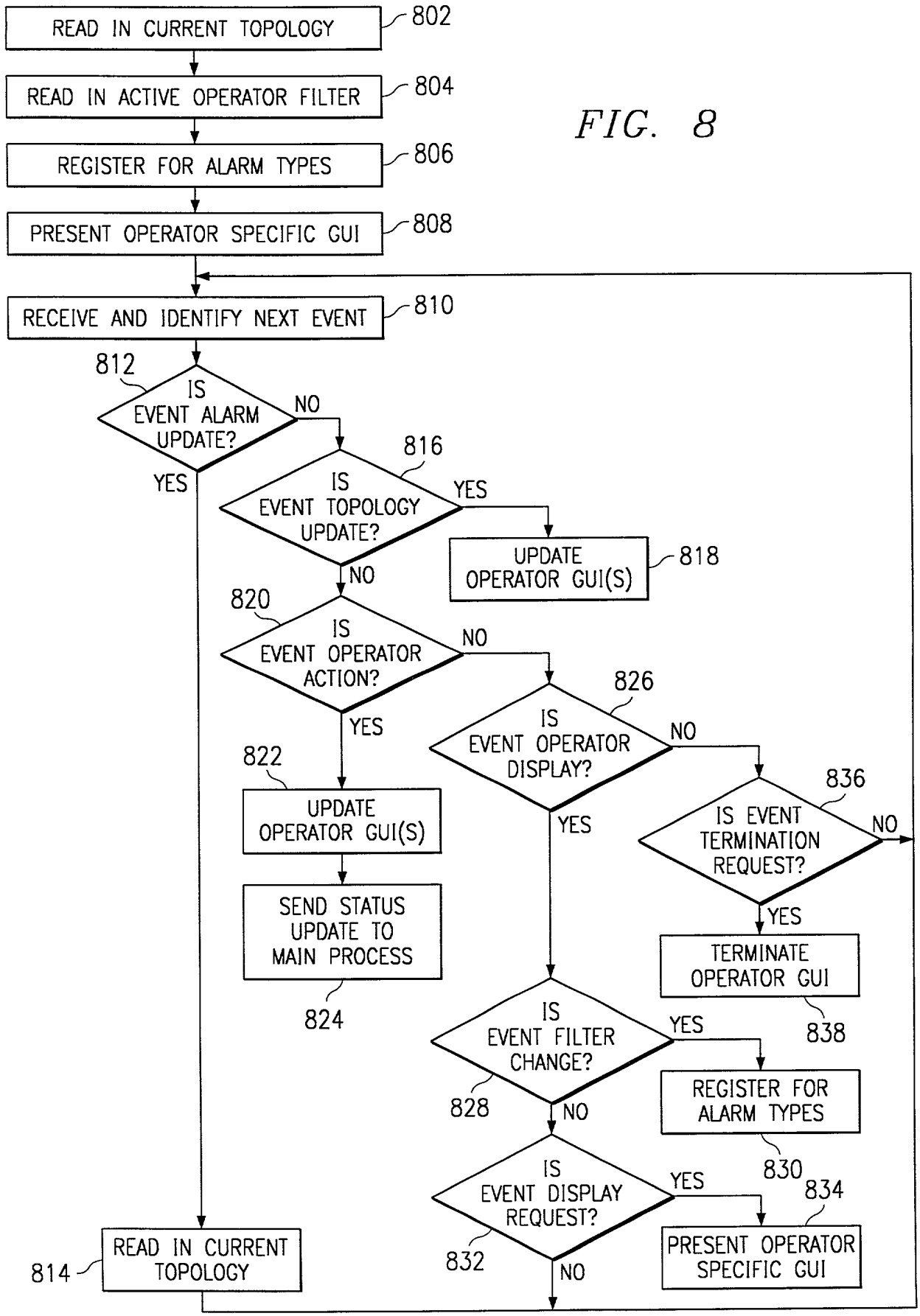

READ IN CURRENT TOPOLOGY
802
READ IN ACTIVE OPERATOR FILTER
804
REGISTER FOR ALARM TYPES
806
PRESENT OPERATOR SPECIFIC GUI
808
RECEIVE AND IDENTIFY NEXT EVENT
810
812
IS EVENT ALARM UPDATE?
NO
YES
816
IS EVENT TOPOLOGY UPDATE?
YES
NO
UPDATE OPERATOR GUI(S)
818
820
IS EVENT OPERATOR ACTION?
NO
YES
826
IS EVENT OPERATOR DISPLAY?
NO
YES
822
UPDATE OPERATOR GUI(S)
SEND STATUS UPDATE TO MAIN PROCESS
824
836
IS EVENT TERMINATION REQUEST?
NO
YES
TERMINATE OPERATOR GUI
838
IS EVENT FILTER CHANGE?
YES
828
NO
REGISTER FOR ALARM TYPES
830
IS EVENT DISPLAY REQUEST?
YES
834
832
NO
PRESENT OPERATOR SPECIFIC GUI
814
READ IN CURRENT TOPOLOGY

FIG. 8

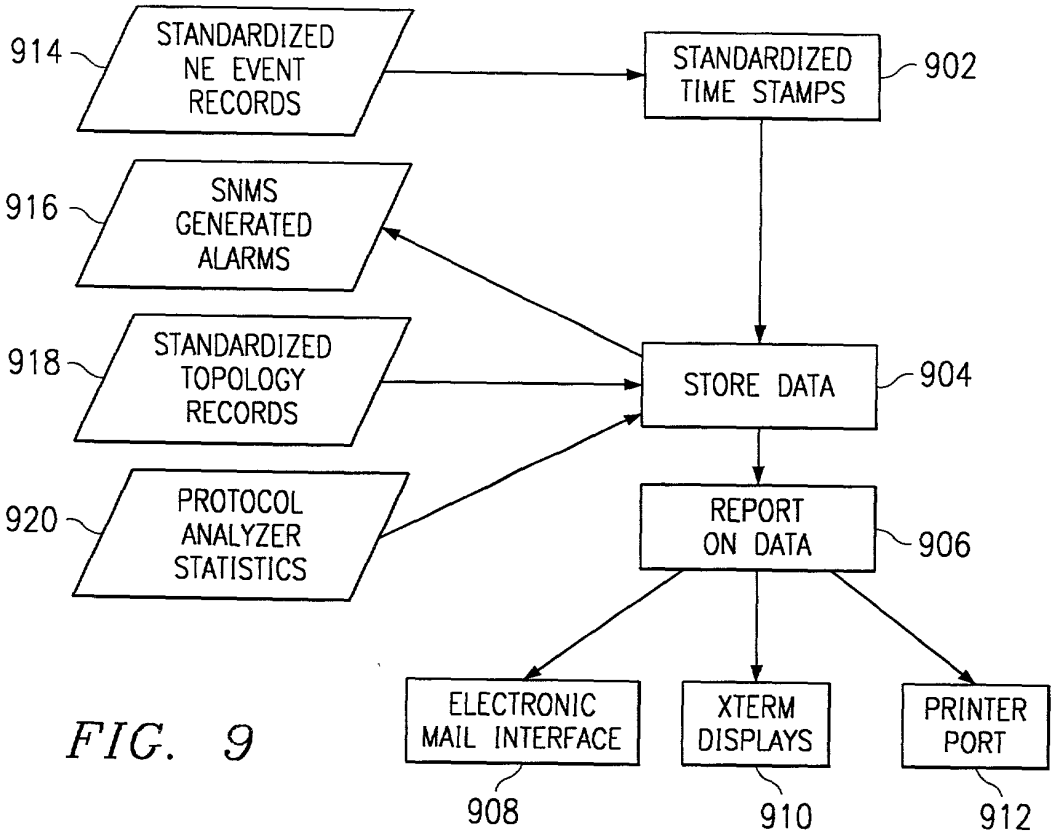

914
STANDARDIZED NE EVENT RECORDS
STANDARDIZED TIME STAMPS
902
916
SNMS GENERATED ALARMS
918
STANDARDIZED TOPOLOGY RECORDS
STORE DATA
904
920
PROTOCOL ANALYZER STATISTICS
REPORT ON DATA
906
ELECTRONIC MAIL INTERFACE
908
XTERM DISPLAYS
910
PRINTER PORT
912

FIG. 9

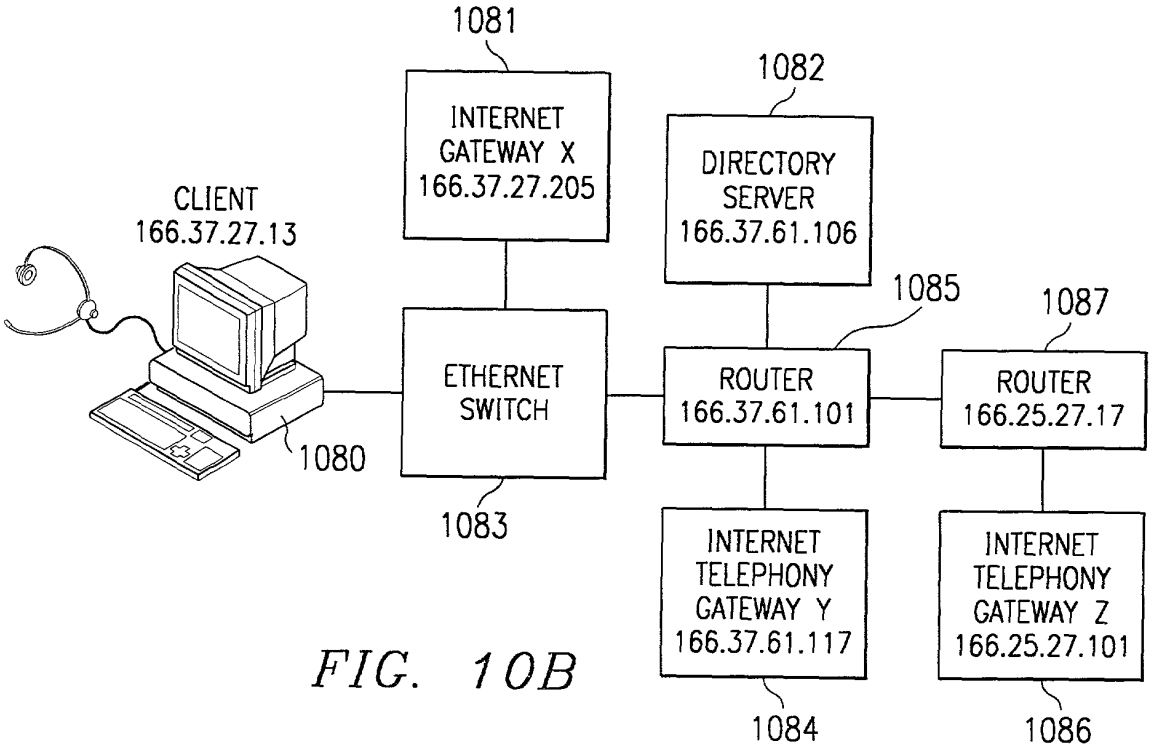

1081
INTERNET GATEWAY X 166.37.27.205
1082
DIRECTORY SERVER 166.37.61.106
CLIENT 166.37.27.13
1085
1087
ETHERNET SWITCH
ROUTER 166.37.61.101
ROUTER 166.25.27.17
1080
1083
INTERNET TELEPHONY GATEWAY Y 166.37.61.117
INTERNET TELEPHONY GATEWAY Z 166.25.27.101
1084
1086

FIG. 10B

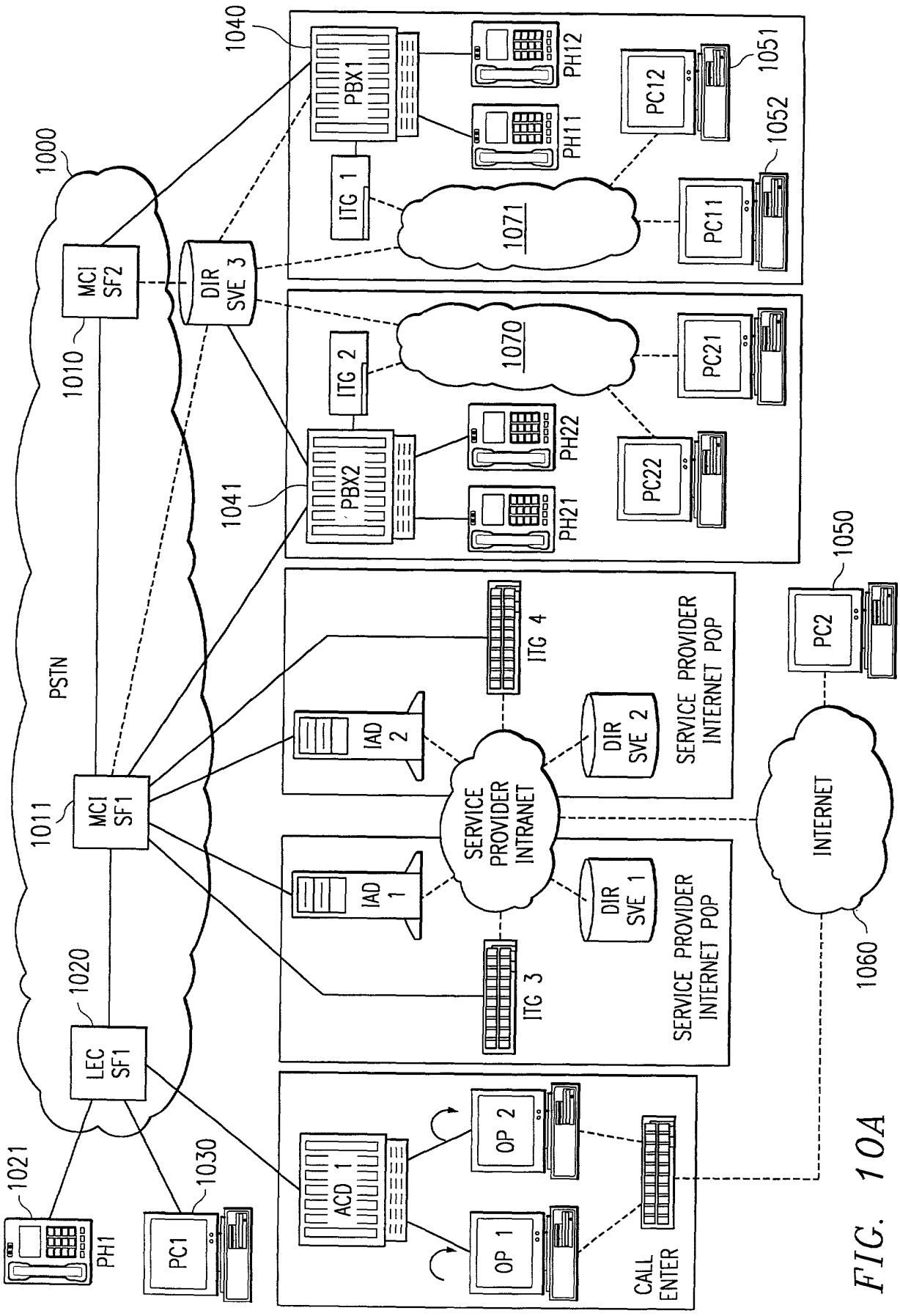

1000
PSTN
1010
MCI SF2
1011
MCI SF1
1020
LEC SF1
1021
PH1
1030
PC1
1040
PBX1
PH12
PH11
ITG 1
1071
PC12
1051
1052
PC11
DIR SVE 3
1041
PBX2
ITG 2
1070
PC21
PH22
PH21
PC22
1050
PC2
ITG 4
IAD 2
DIR SVE 2
SERVICE PROVIDER INTERNET POP
SERVICE PROVIDER INTRANET
IAD 1
DIR SVE 1
ITG 3
SERVICE PROVIDER INTERNET POP
INTERNET
1060
ACD 1
OP 2
OP 1
CALL ENTER

FIG. 10A

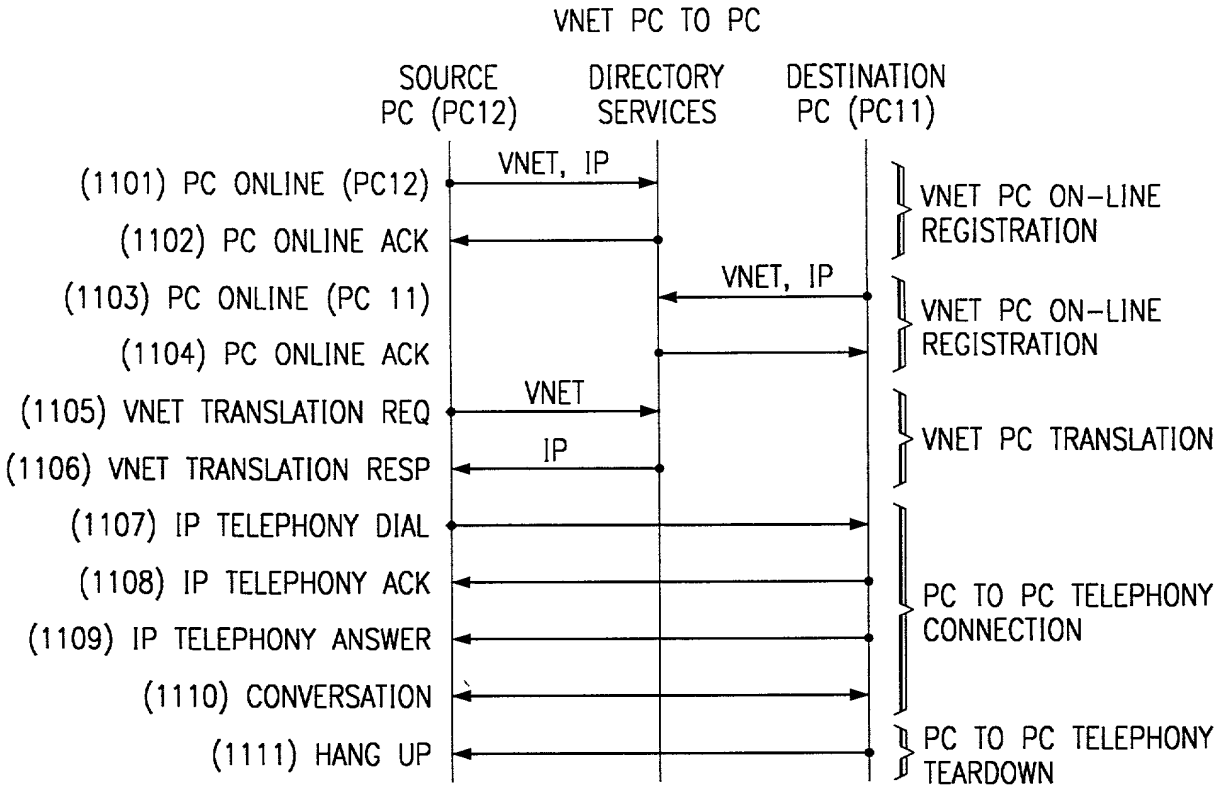


FIG. 11

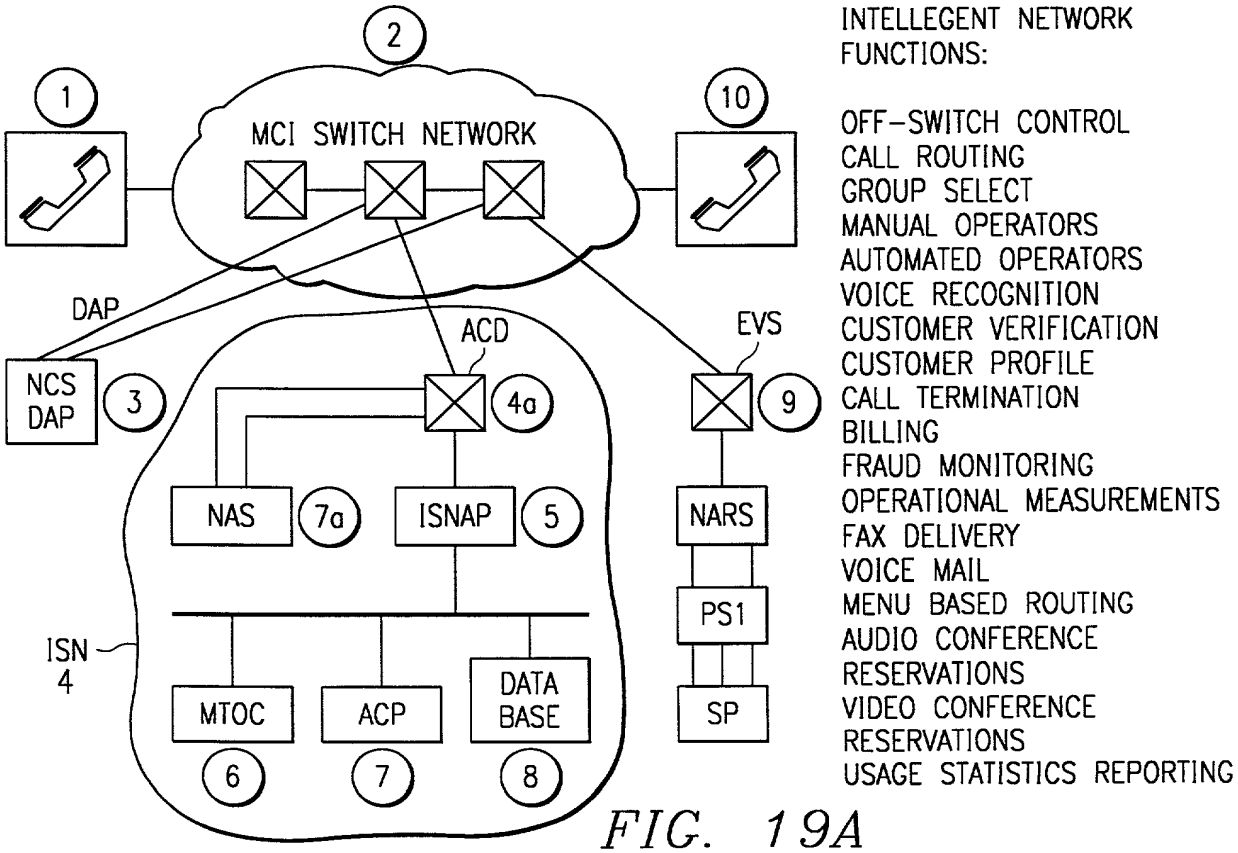


FIG. 19A

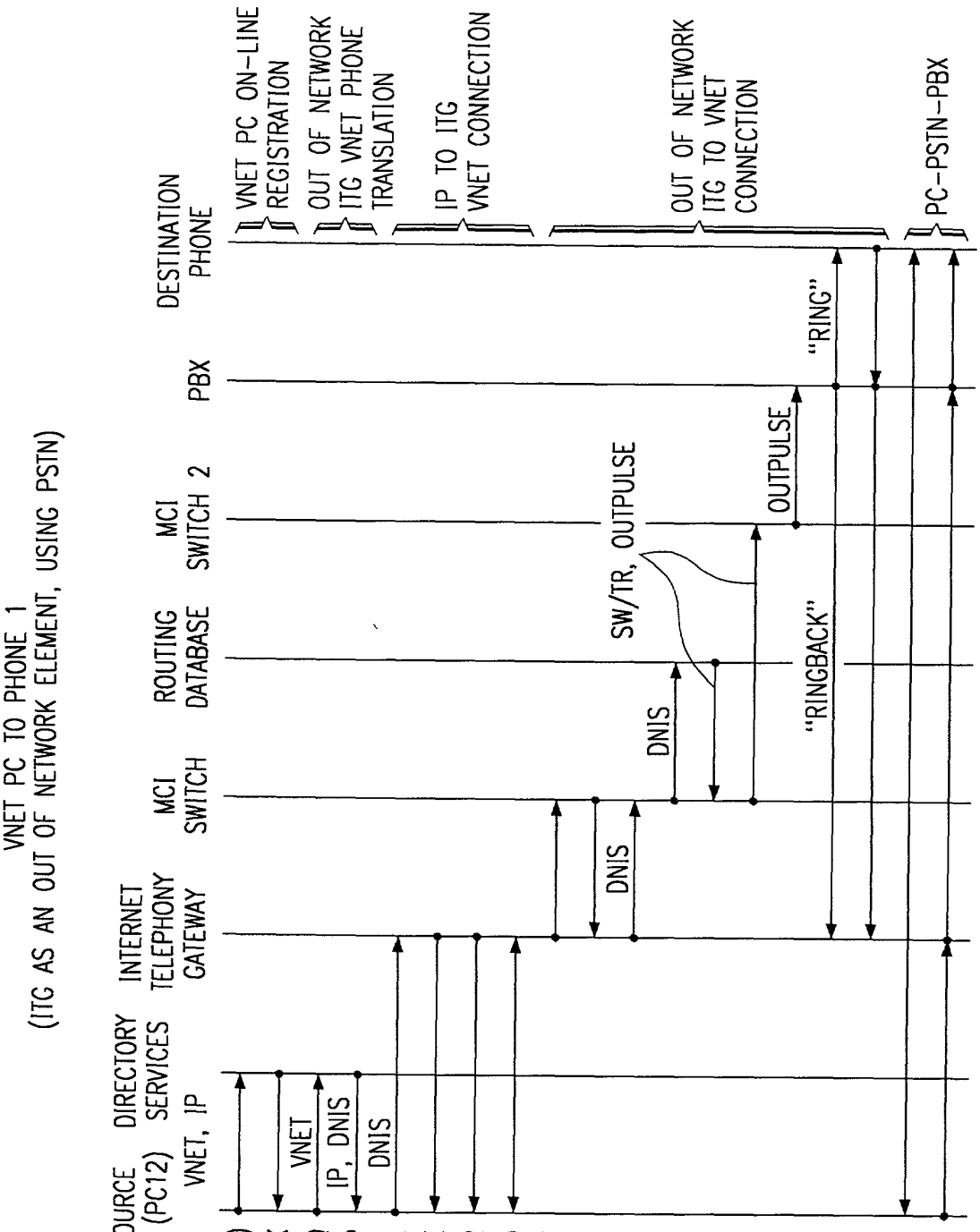

VNET PC TO PHONE 1
(ITG AS AN OUT OF NETWORK ELEMENT, USING PSTN)
SOURCE PC (PC12)
DIRECTORY SERVICES VNET, IP
INTERNET TELEPHONY GATEWAY
MCI SWITCH
ROUTING DATABASE
MCI SWITCH 2
PBX
DESTINATION PHONE
VNET PC ON-LINE REGISTRATION
OUT OF NETWORK ITG VNET PHONE TRANSLATION
IP TO ITG VNET CONNECTION
OUT OF NETWORK ITG TO VNET CONNECTION
PC-PSTN-PBX
(1201) PC ONLINE (PC12)
(1202) PC ONLINE ACK
VNET
(1203) VNET TRANSLATION REQ
IP, DNIS
(1204) VNET TRANSLATION RESP
DNIS
(1205) IP TELEPHONY DIAL
(1206) IP TELEPHONY ACK
(1207) IP TELEPHONY ANSWER
(1208) VOICE PATH ESTABLISHED
(1209A) OFFHOOK
DNIS
(1209B) DIAL TONE
(1210) OUTPULSE
DNIS
SW/TR, OUTPULSE
(1211) ROUTING TRANSLATION
(1212) TRANSLATION RESPONSE
(1213) SWITCH TO SWITCH
OUTPULSE
(1214) SWITCH TO PBX
"RINGBACK"
(1215) RING/RINGBACK
"RING"
(1216) ANSWER
(1217) CONVERSATION
(1218) HANG UP

FIG. 12

TOHT90 "E866780"

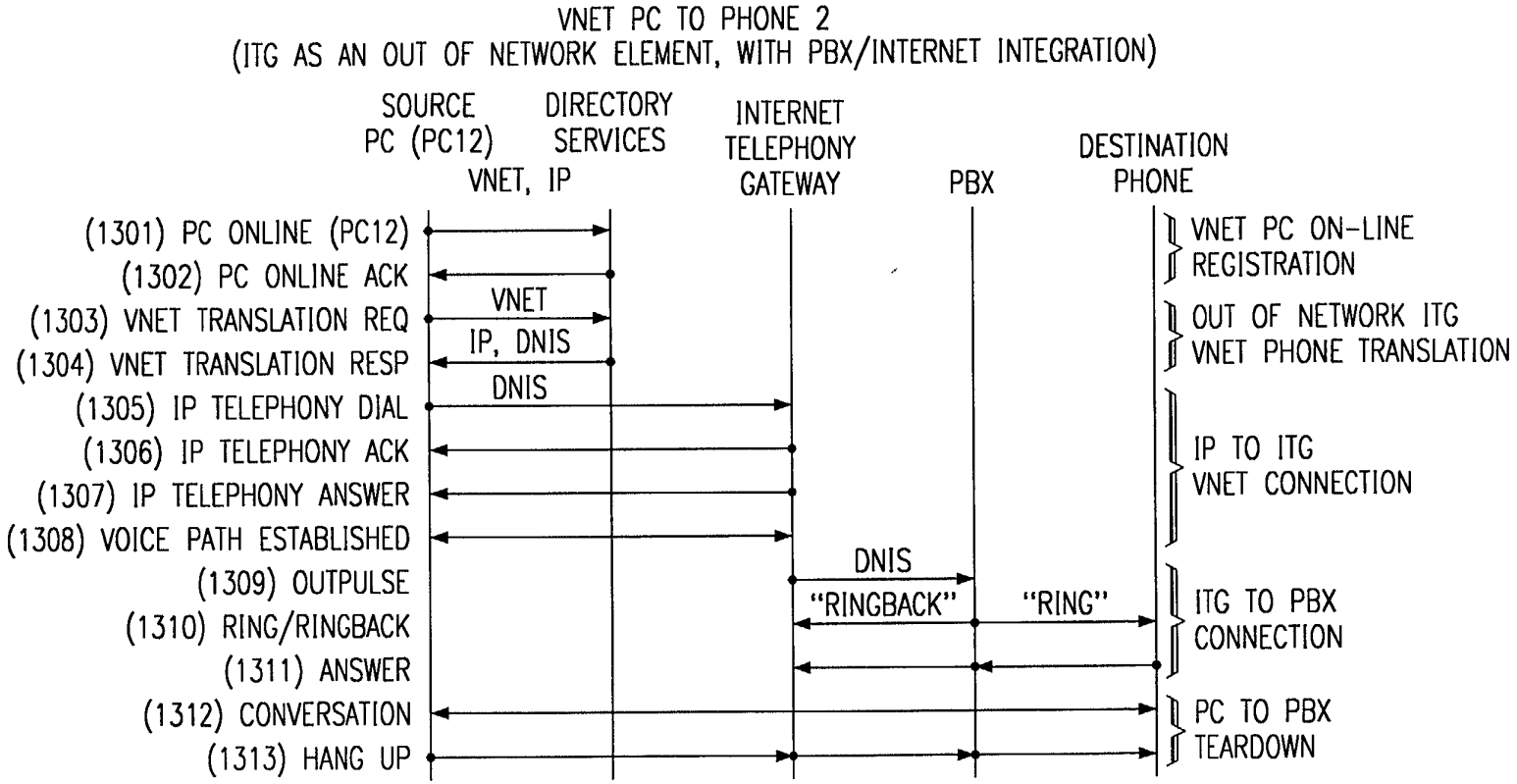


FIG. 13

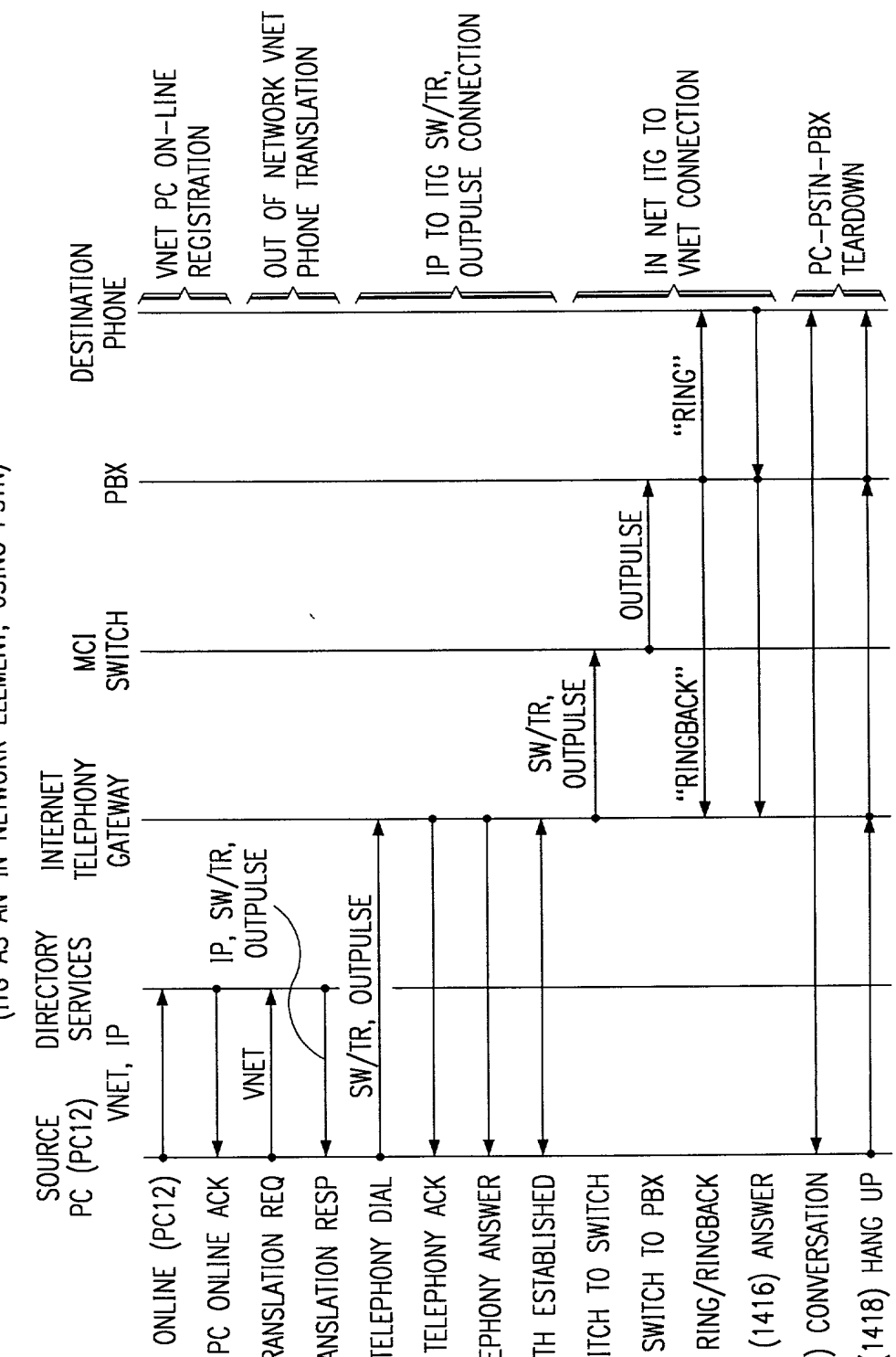

VNET PC TO PHONE 3
(ITG AS AN IN NETWORK ELEMENT, USING PSTN)
SOURCE PC (PC12)
DIRECTORY SERVICES VNET, IP
INTERNET TELEPHONY GATEWAY
MCI SWITCH
PBX
DESTINATION PHONE
VNET PC ON-LINE REGISTRATION
OUT OF NETWORK VNET PHONE TRANSLATION
IP TO ITG SW/TR, OUTPULSE CONNECTION
IN NET ITG TO VNET CONNECTION
PC-PSTN-PBX TEARDOWN
(1401) PC ONLINE (PC12)
(1402) PC ONLINE ACK
IP, SW/TR, OUTPULSE
(1403) VNET TRANSLATION REQ
VNET
(1404) VNET TRANSLATION RESP
SW/TR, OUTPULSE
(1405) IP TELEPHONY DIAL
(1406) IP TELEPHONY ACK
(1407) IP TELEPHONY ANSWER
SW/TR, OUTPULSE
(1408) VOICE PATH ESTABLISHED
OUTPULSE
(1411) SWITCH TO SWITCH
"RING"
(1414) SWITCH TO PBX
"RINGBACK"
(1415) RING/RINGBACK
(1416) ANSWER
(1417) CONVERSATION
(1418) HANG UP

FIG. 14

FOUND 30 E8662860

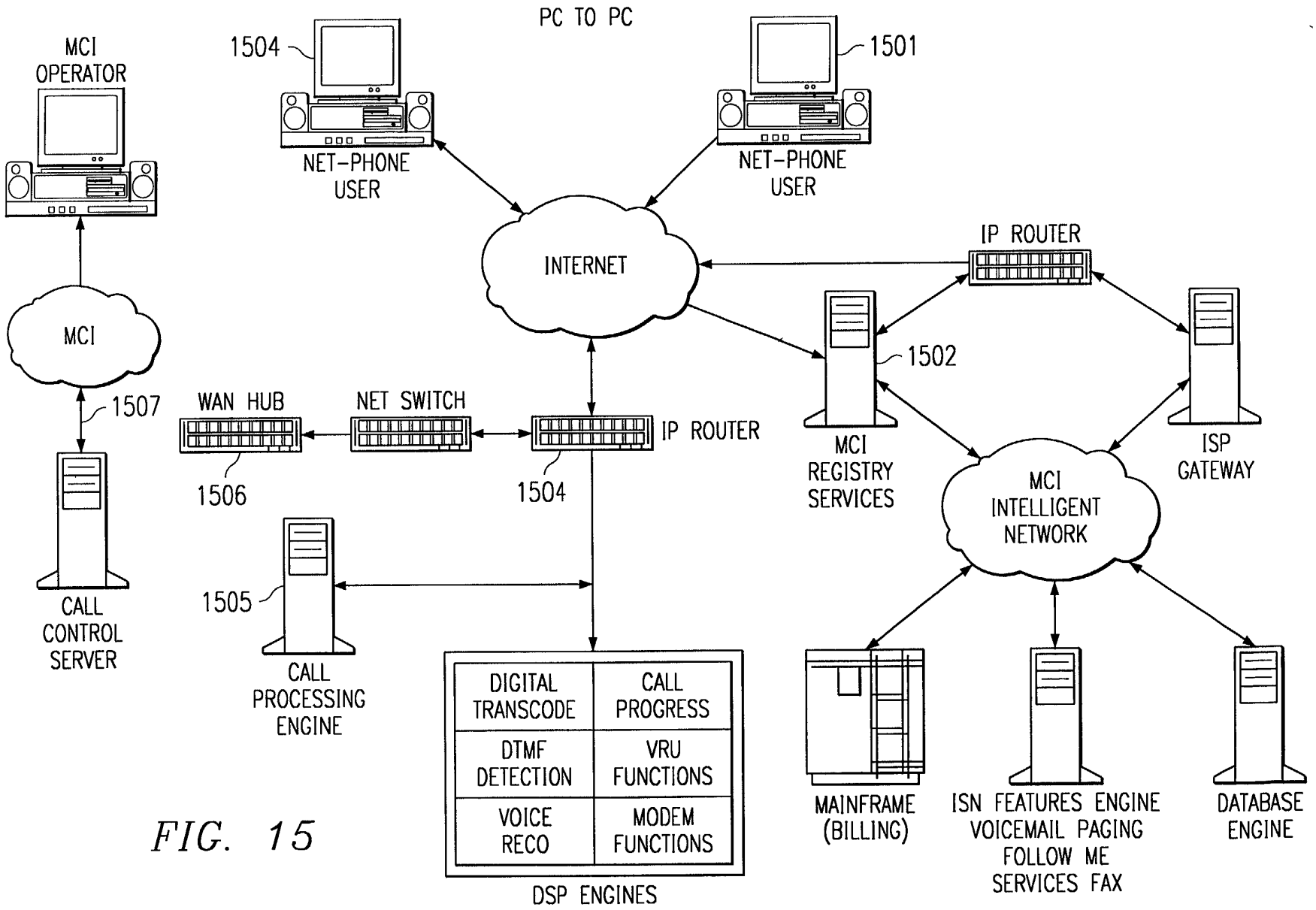


FIG. 15

Docket No. VON-96-046-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al
Sheets of Drawings 15 of 134

TOHT90 "E8662860

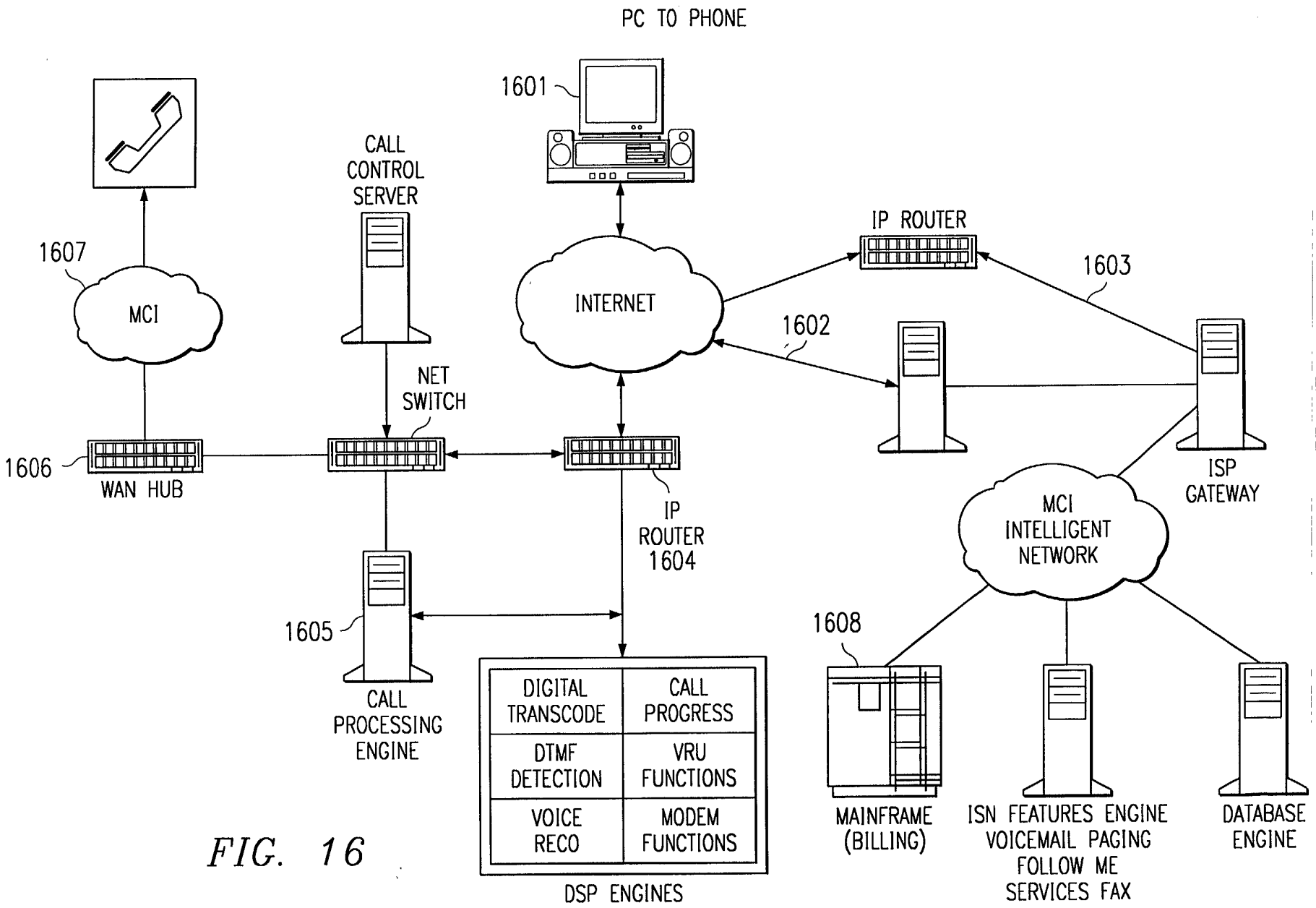


FIG. 16

Docket No.: VGA-96-016-C1 Applicant: NOT ASSIGNED
Title: A System and Method for Providing Dynamic Quality of Service in a Hybrid Network
Inventors: FLLIOT et al
Sheets of Drawings: 16 of 154

T0hT90"E8662860

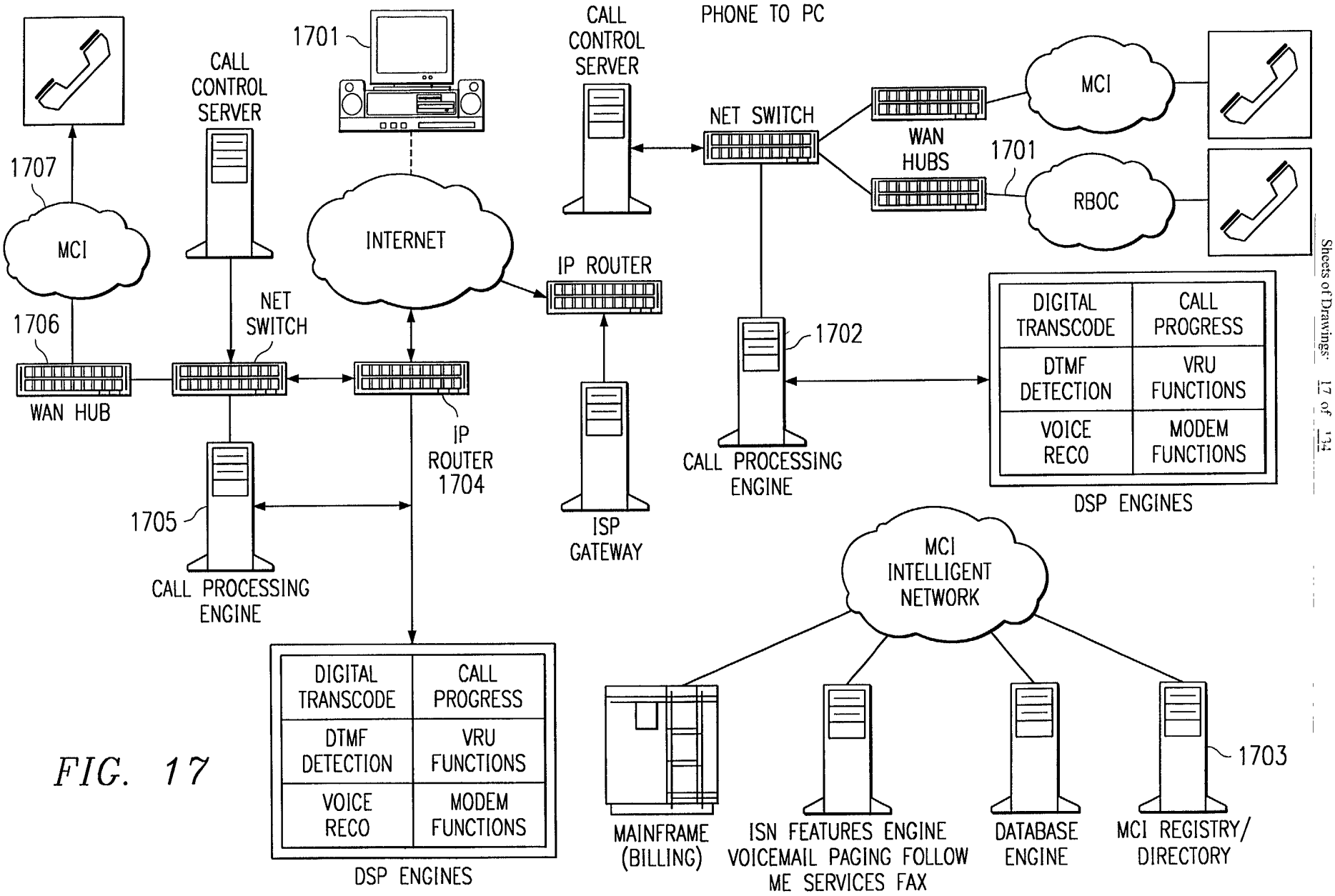


FIG. 17

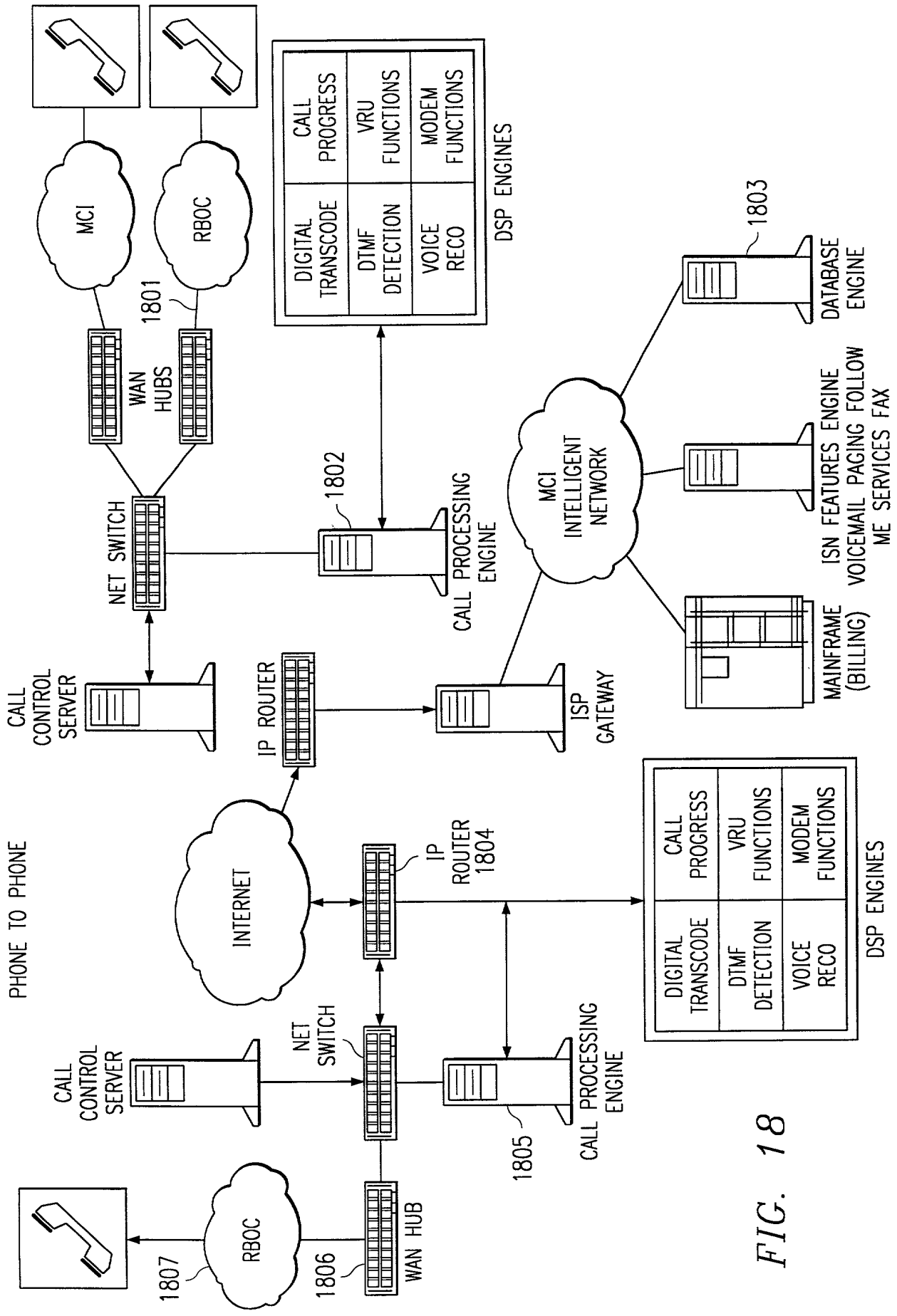

PHONE TO PHONE
RBOC
1807
WAN HUB
1806
CALL CONTROL SERVER
NET SWITCH
CALL PROCESSING ENGINE
1805
IP ROUTER 1804
INTERNET
IP ROUTER
CALL CONTROL SERVER
NET SWITCH
1802
CALL PROCESSING ENGINE
MCI INTELLIGENT NETWORK
ISP GATEWAY
MAINFRAME (BILLING)
ISN FEATURES ENGINE
VOICEMAIL PAGING FOLLOW ME SERVICES FAX
1803
DATABASE ENGINE
MCI
RBOC
1801
WAN HUBS
DIGITAL TRANSCODE
DTMF DETECTION
VOICE RECO
CALL PROGRESS
VRU FUNCTIONS
MODEM FUNCTIONS
DSP ENGINES
DIGITAL TRANSCODE
DTMF DETECTION
VOICE RECO
CALL PROGRESS
VRU FUNCTIONS
MODEM FUNCTIONS
DSP ENGINES

FIG. 18

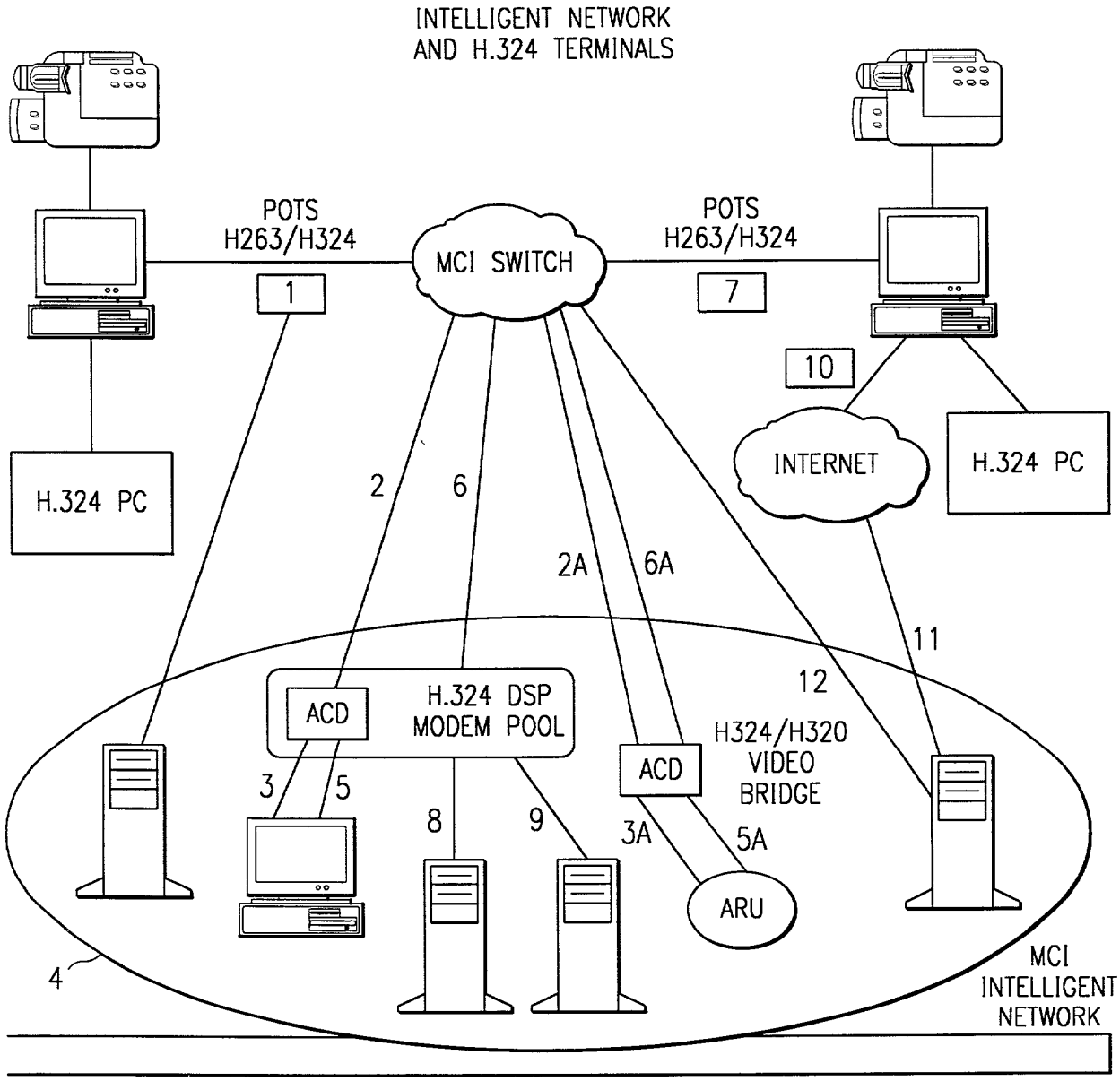

INTELLIGENT NETWORK
AND H.324 TERMINALS
POTS
H263/H324
MCI SWITCH
POTS
H263/H324
1
7
10
H.324 PC
INTERNET
H.324 PC
2
6
2A
6A
11
12
ACD
H.324 DSP
MODEM POOL
ACD
H324/H320
VIDEO
BRIDGE
3
5
8
9
3A
5A
ARU
4
MCI
INTELLIGENT
NETWORK

FIG. 19B

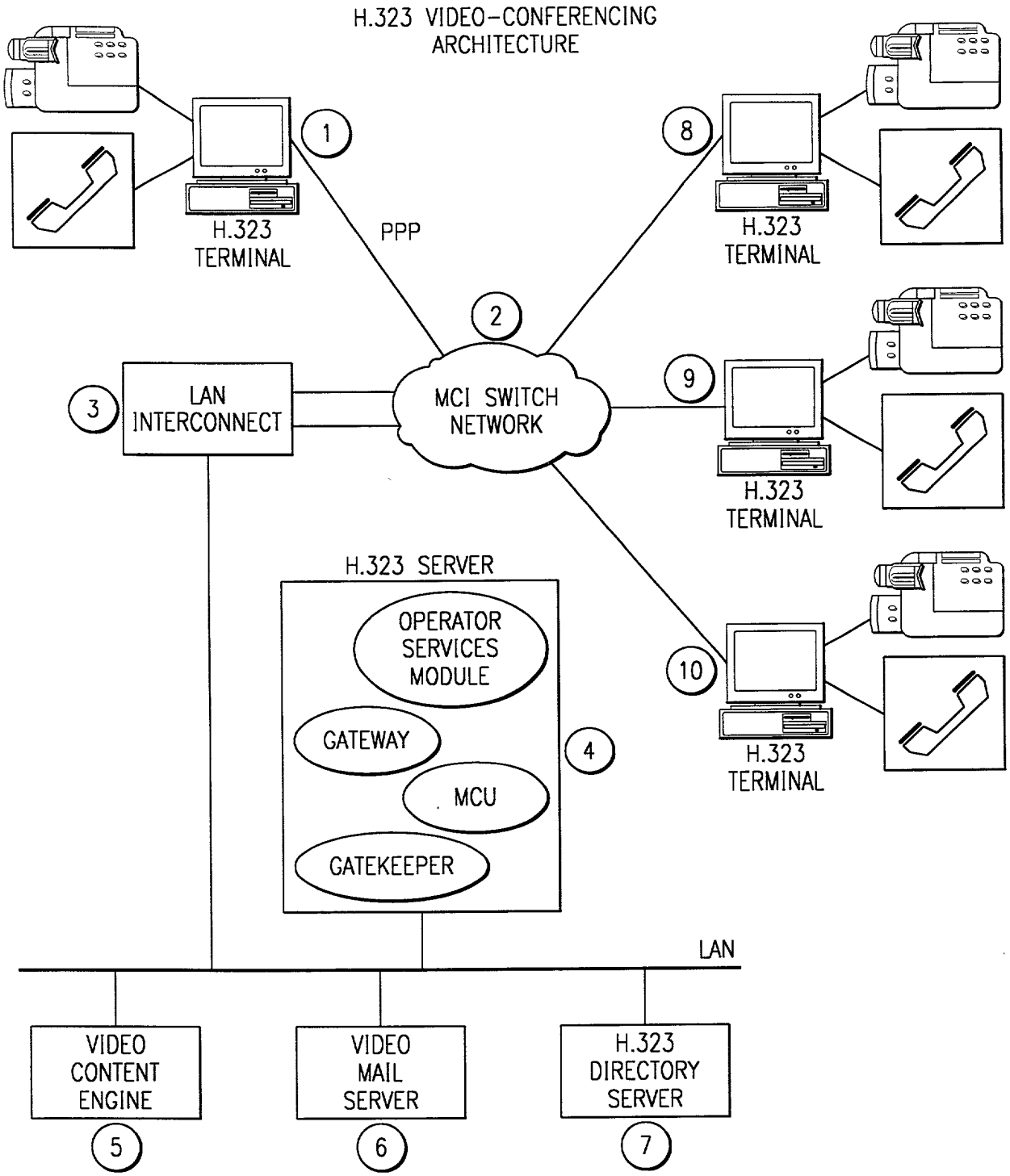

H.323 VIDEO-CONFERENCING ARCHITECTURE
1
H.323 TERMINAL
PPP
2
8
H.323 TERMINAL
3
LAN INTERCONNECT
MCI SWITCH NETWORK
9
H.323 TERMINAL
H.323 SERVER
OPERATOR SERVICES MODULE
GATEWAY
4
MCU
GATEKEEPER
10
H.323 TERMINAL
LAN
VIDEO CONTENT ENGINE
5
VIDEO MAIL SERVER
6
H.323 DIRECTORY SERVER
7

FIG. 19C

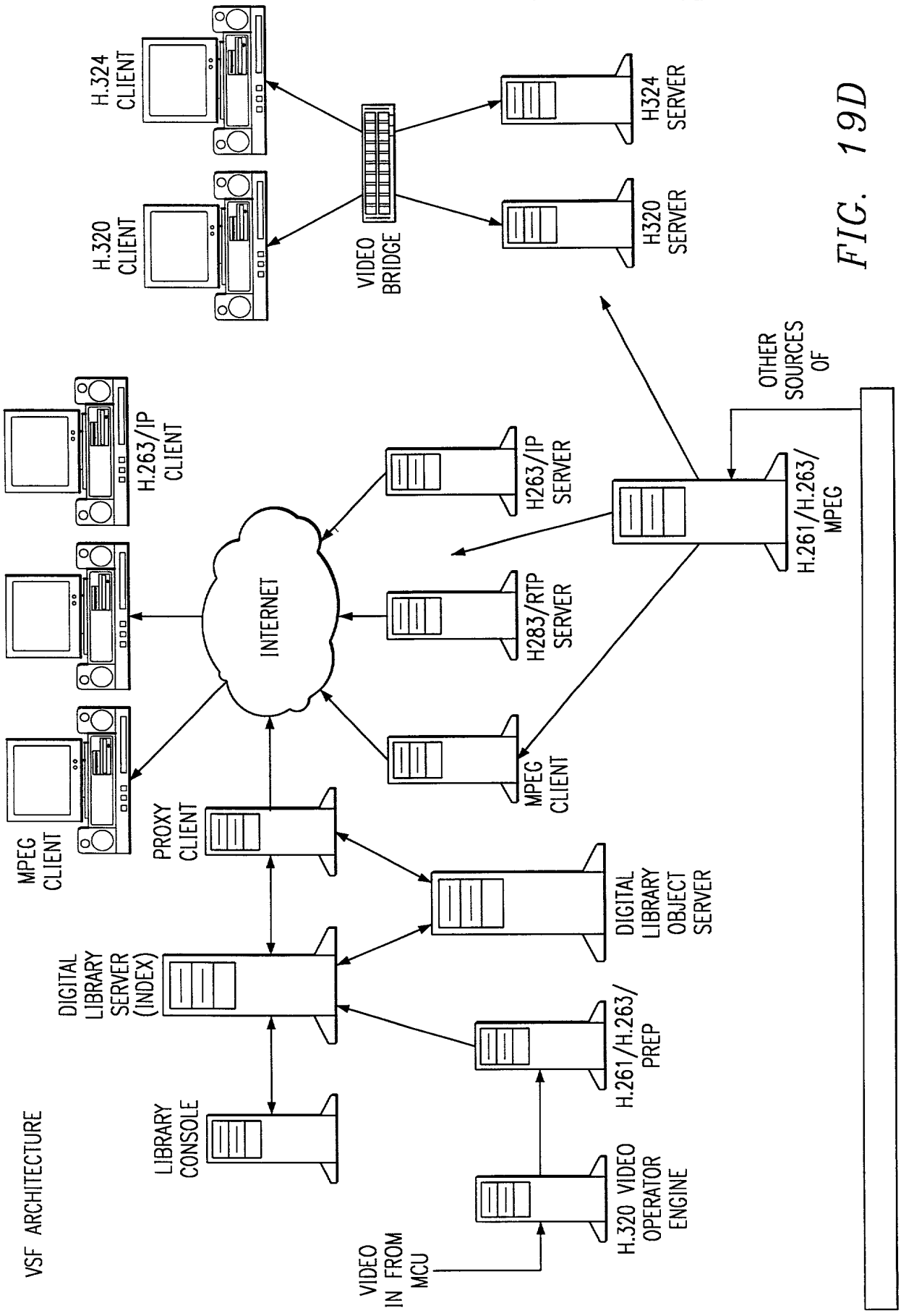

VSF ARCHITECTURE
VIDEO IN FROM MCU
H.320 VIDEO OPERATOR ENGINE
H.261/H.263/ PREP
LIBRARY CONSOLE
DIGITAL LIBRARY SERVER (INDEX)
DIGITAL LIBRARY OBJECT SERVER
PROXY CLIENT
MPEG CLIENT
INTERNET
MPEG CLIENT
H283/RTP SERVER
H263/IP SERVER
H.263/IP CLIENT
H.261/H.263/ MPEG
OTHER SOURCES OF
VIDEO BRIDGE
H.320 CLIENT
H.324 CLIENT
H320 SERVER
H324 SERVER

FIG. 19D

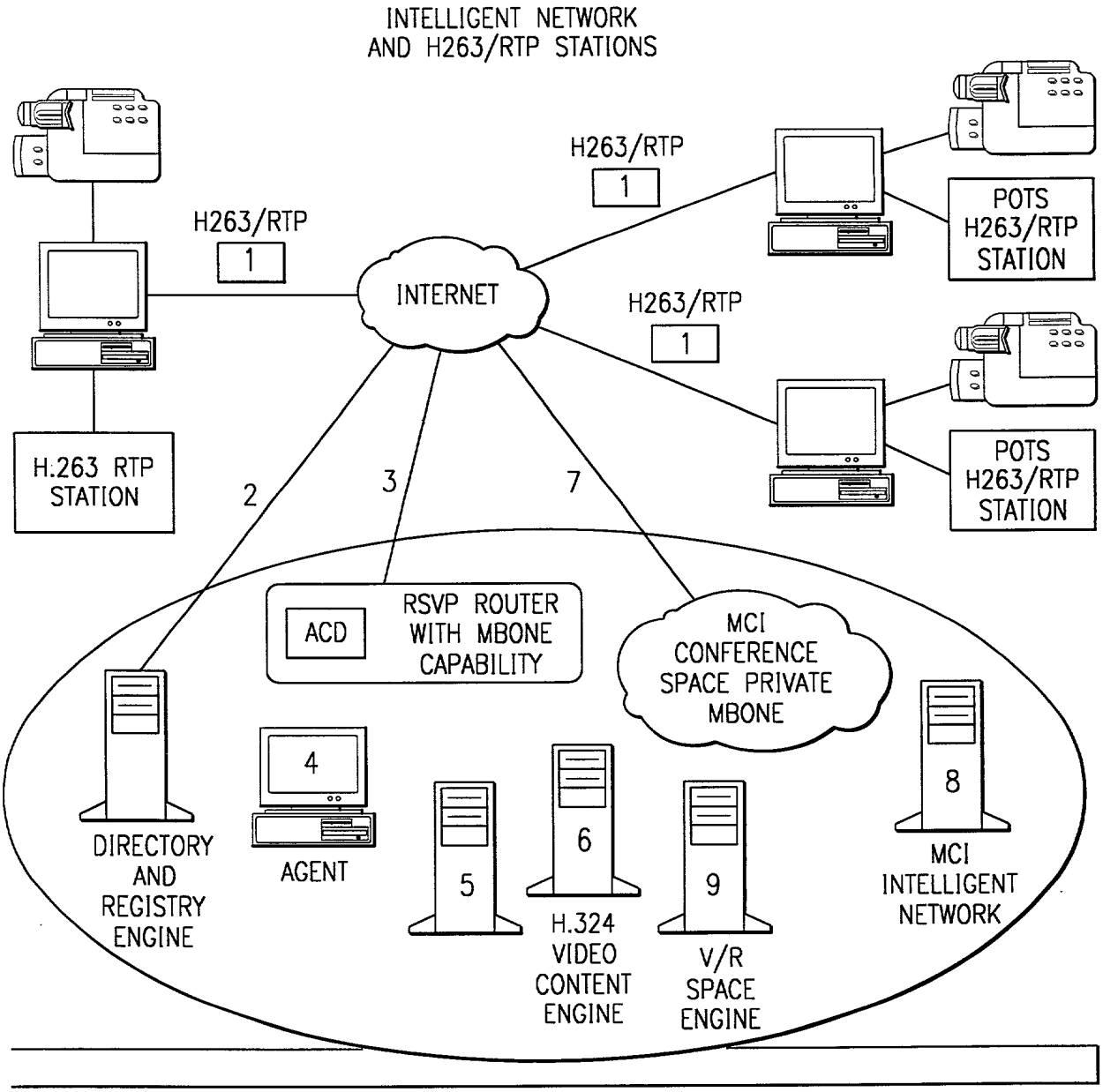

INTELLIGENT NETWORK
AND H263/RTP STATIONS
H263/RTP
1
H263/RTP
1
POTS
H263/RTP
STATION
INTERNET
H263/RTP
1
H.263 RTP
STATION
POTS
H263/RTP
STATION
2
3
7
ACD
RSVP ROUTER
WITH MBONE
CAPABILITY
MCI
CONFERENCE
SPACE PRIVATE
MBONE
4
8
DIRECTORY
AND
REGISTRY
ENGINE
AGENT
5
6
9
MCI
INTELLIGENT
NETWORK
H.324
VIDEO
CONTENT
ENGINE
V/R
SPACE
ENGINE

FIG. 19E

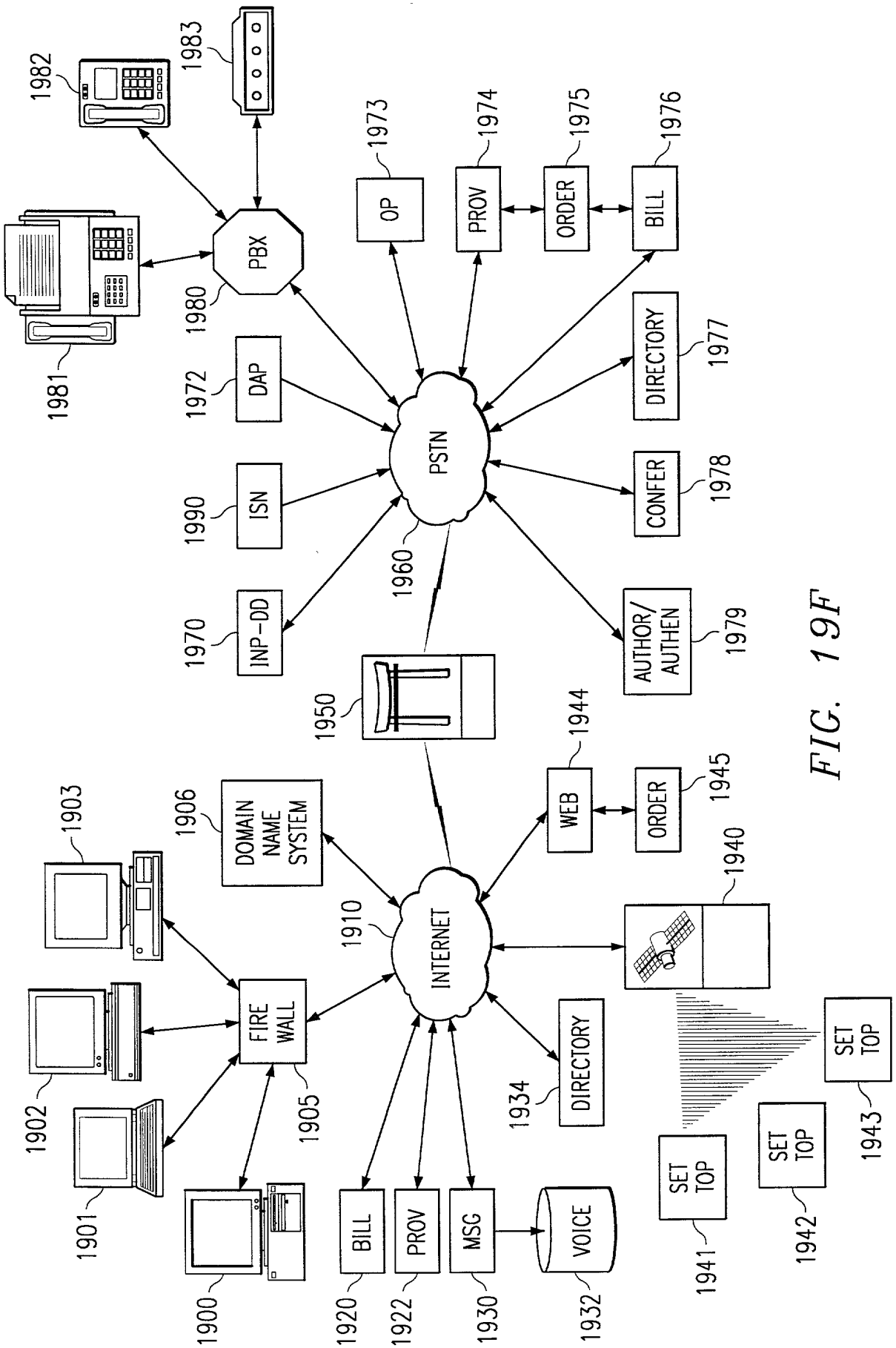

1900
1901
1902
1903
1905
FIRE WALL
1906
DOMAIN NAME SYSTEM
1910
INTERNET
1920
BILL
1922
PROV
1930
MSC
1932
VOICE
1934
DIRECTORY
1940
1941
SET TOP
1942
SET TOP
1943
SET TOP
1944
WEB
1945
ORDER
1950
1960
PSTN
1970
INP-DD
1972
DAP
1973
OP
1974
PROV
1975
ORDER
1976
BILL
1977
DIRECTORY
1978
CONFER
1979
AUTHOR/ AUTHEN
1980
PBX
1981
1982
1983
1990
ISN

FIG. 19F

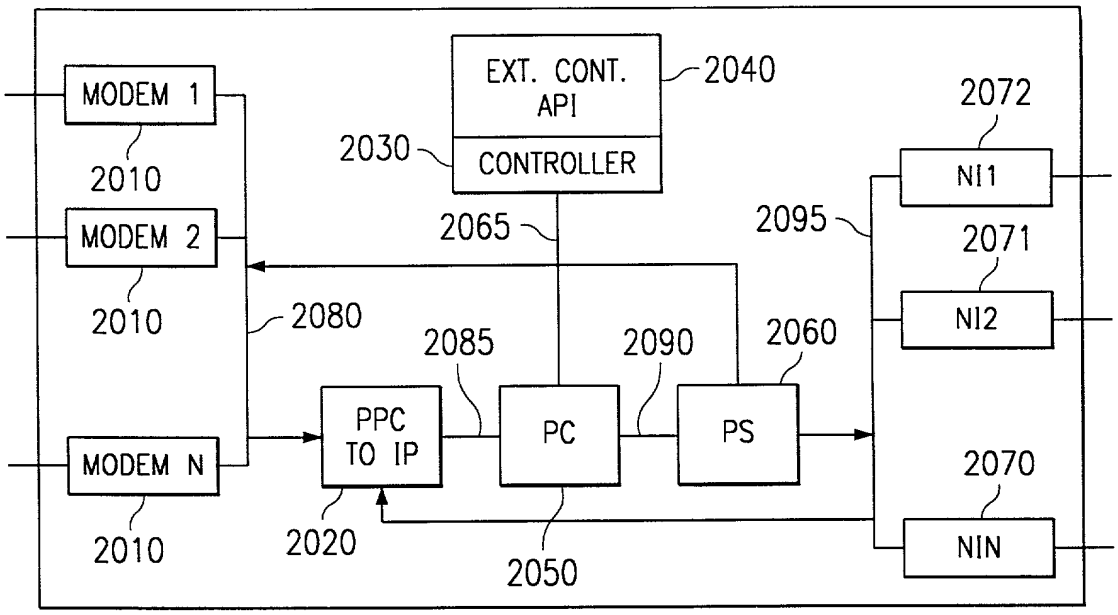


FIG. 19G

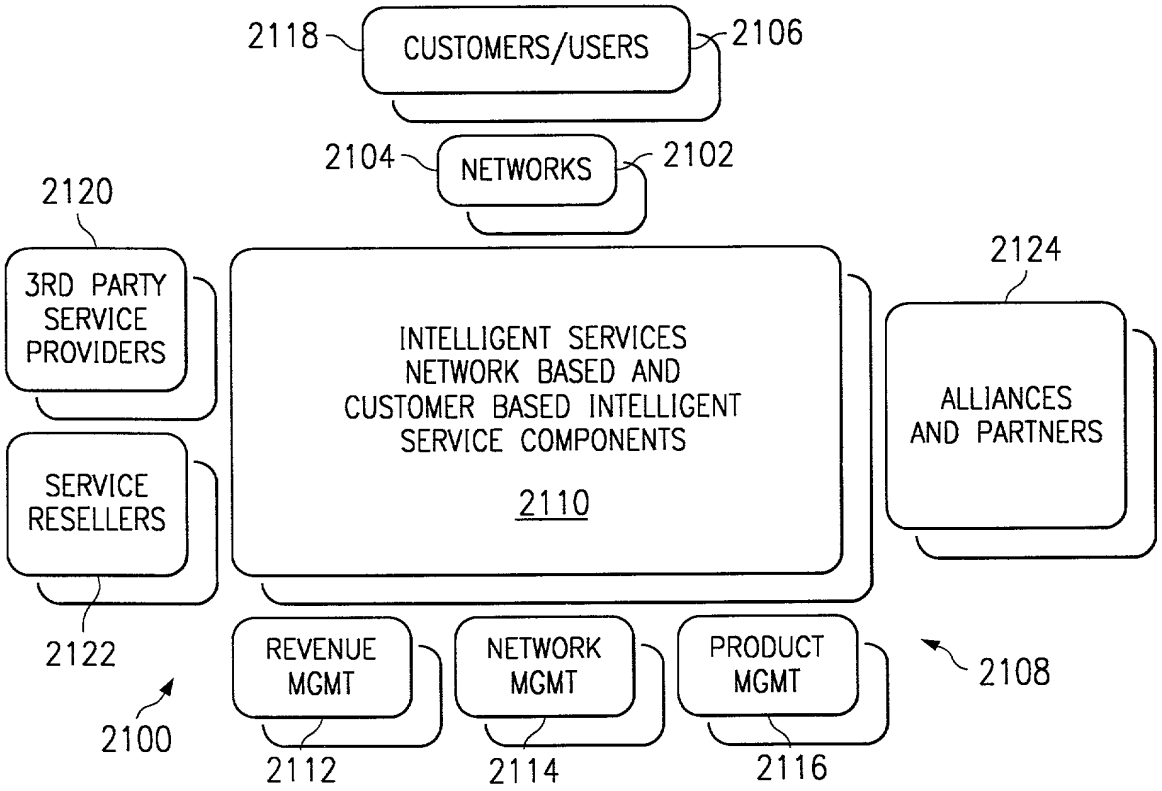


FIG. 20

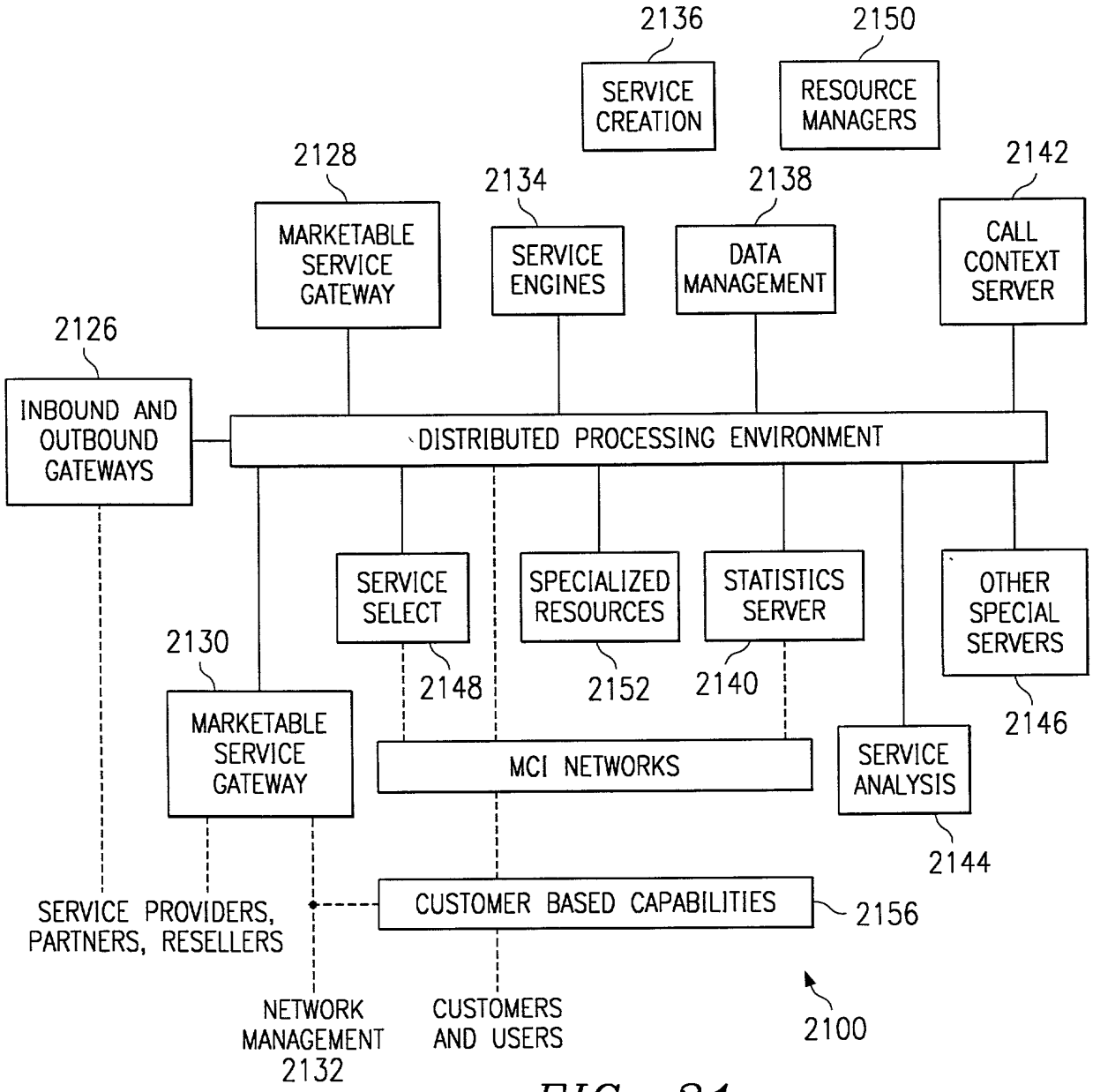

2136
SERVICE CREATION
2150
RESOURCE MANAGERS
2128
MARKETABLE SERVICE GATEWAY
2134
SERVICE ENGINES
2138
DATA MANAGEMENT
2142
CALL CONTEXT SERVER
2126
INBOUND AND OUTBOUND GATEWAYS
DISTRIBUTED PROCESSING ENVIRONMENT
SERVICE SELECT
2148
SPECIALIZED RESOURCES
2152
STATISTICS SERVER
2140
OTHER SPECIAL SERVERS
2146
2130
MARKETABLE SERVICE GATEWAY
MCI NETWORKS
SERVICE ANALYSIS
2144
SERVICE PROVIDERS, PARTNERS, RESELLERS
CUSTOMER BASED CAPABILITIES
2156
NETWORK MANAGEMENT 2132
CUSTOMERS AND USERS
2100

FIG. 21

TONTSO" E866Z860

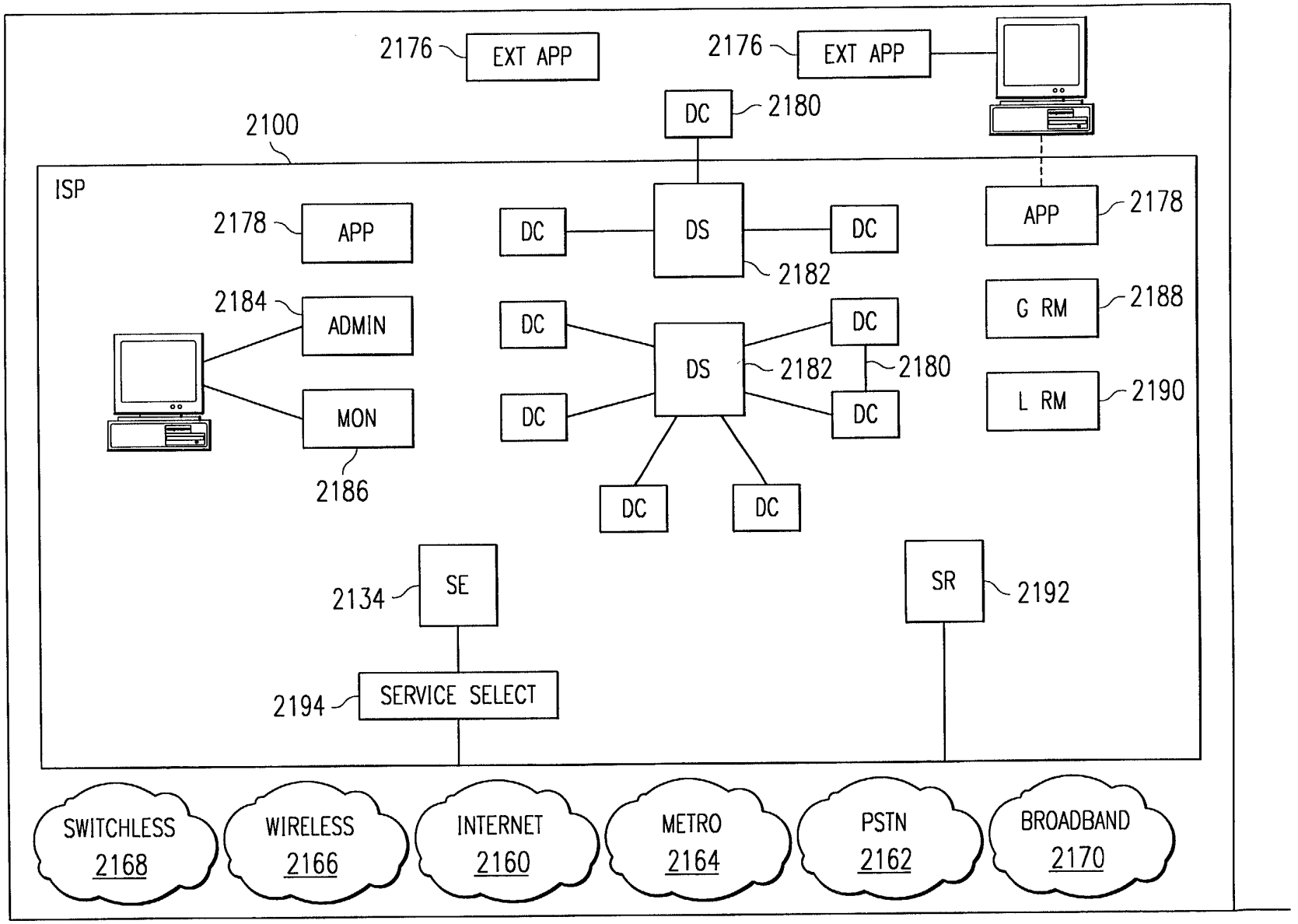


FIG. 22

Docket No.: VON-96-046-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al.
Sheets of Drawings: 26 of 134

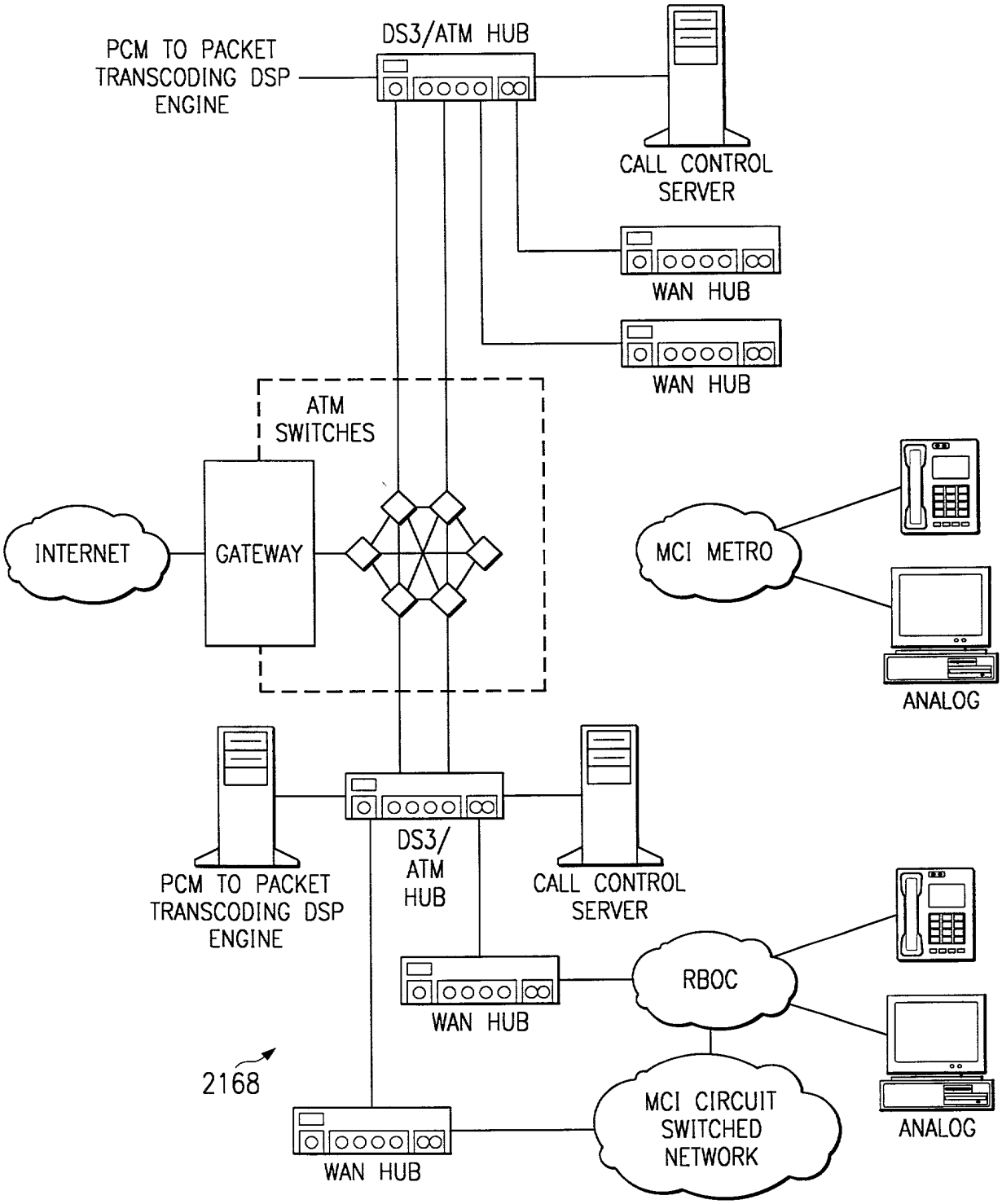

PCM TO PACKET TRANSCODING DSP ENGINE
DS3/ATM HUB
CALL CONTROL SERVER
WAN HUB
WAN HUB
ATM SWITCHES
INTERNET
GATEWAY
MCI METRO
ANALOG
PCM TO PACKET TRANSCODING DSP ENGINE
DS3/ ATM HUB
CALL CONTROL SERVER
WAN HUB
RBOC
2168
MCI CIRCUIT SWITCHED NETWORK
ANALOG
WAN HUB

FIG. 23

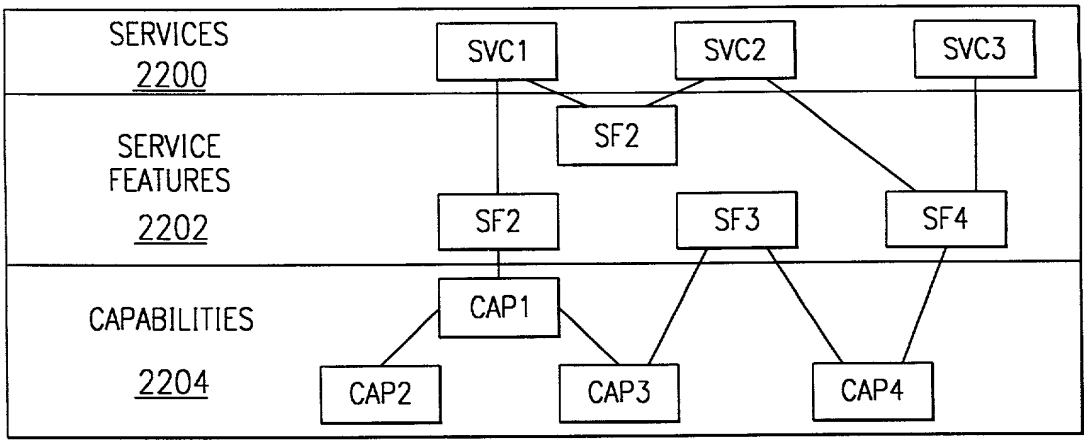


FIG. 24

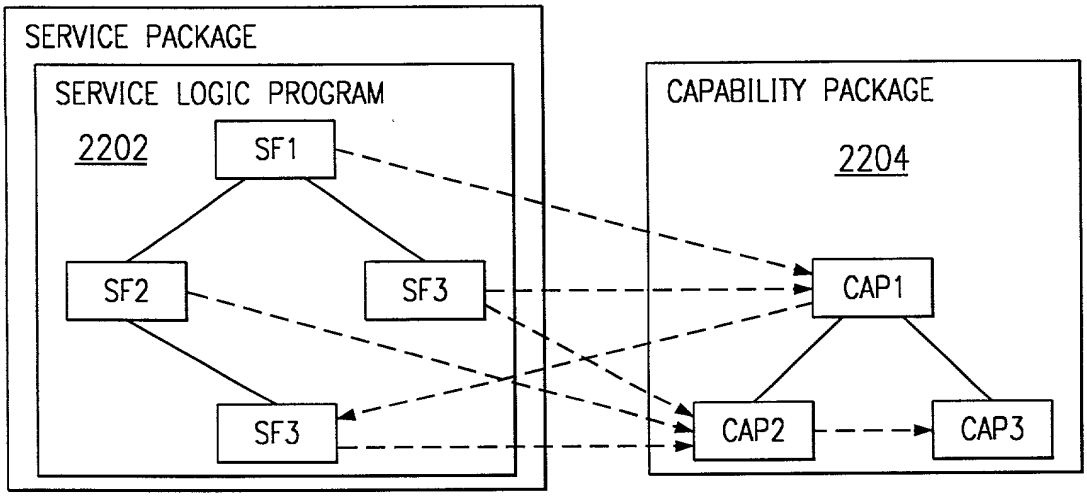


FIG. 25

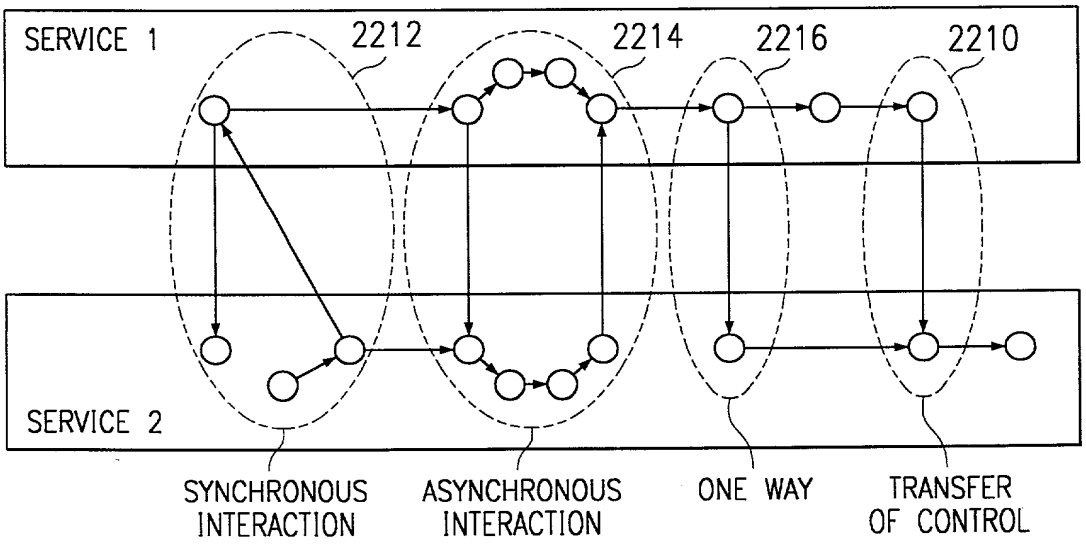


FIG. 26

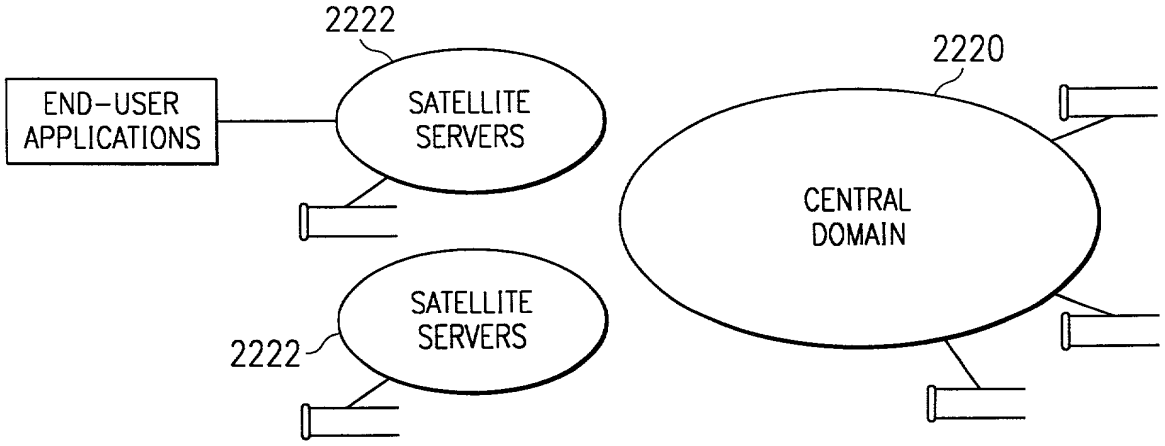

2222
END-USER APPLICATIONS
SATELLITE SERVERS
2220
CENTRAL DOMAIN
SATELLITE SERVERS
2222

FIG. 27

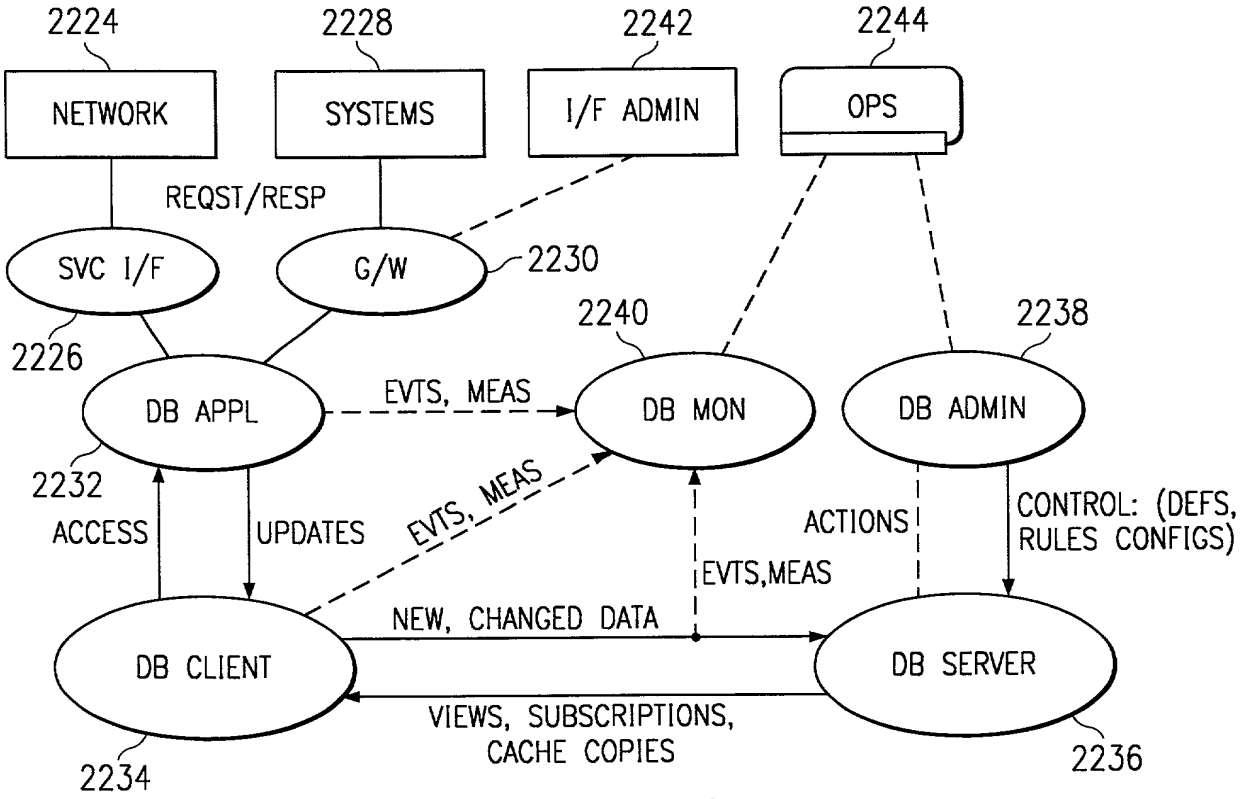

2224
NETWORK
2228
SYSTEMS
2242
I/F ADMIN
2244
OPS
REQST/RESP
SVC I/F
G/W
2230
2226
2240
2238
DB APPL
EVTS, MEAS
DB MON
DB ADMIN
2232
ACCESS
UPDATES
EVTS, MEAS
ACTIONS
CONTROL: (DEFS, RULES CONFIGS)
EVTS,MEAS
NEW, CHANGED DATA
DB CLIENT
DB SERVER
VIEWS, SUBSCRIPTIONS, CACHE COPIES
2234
2236

FIG. 28

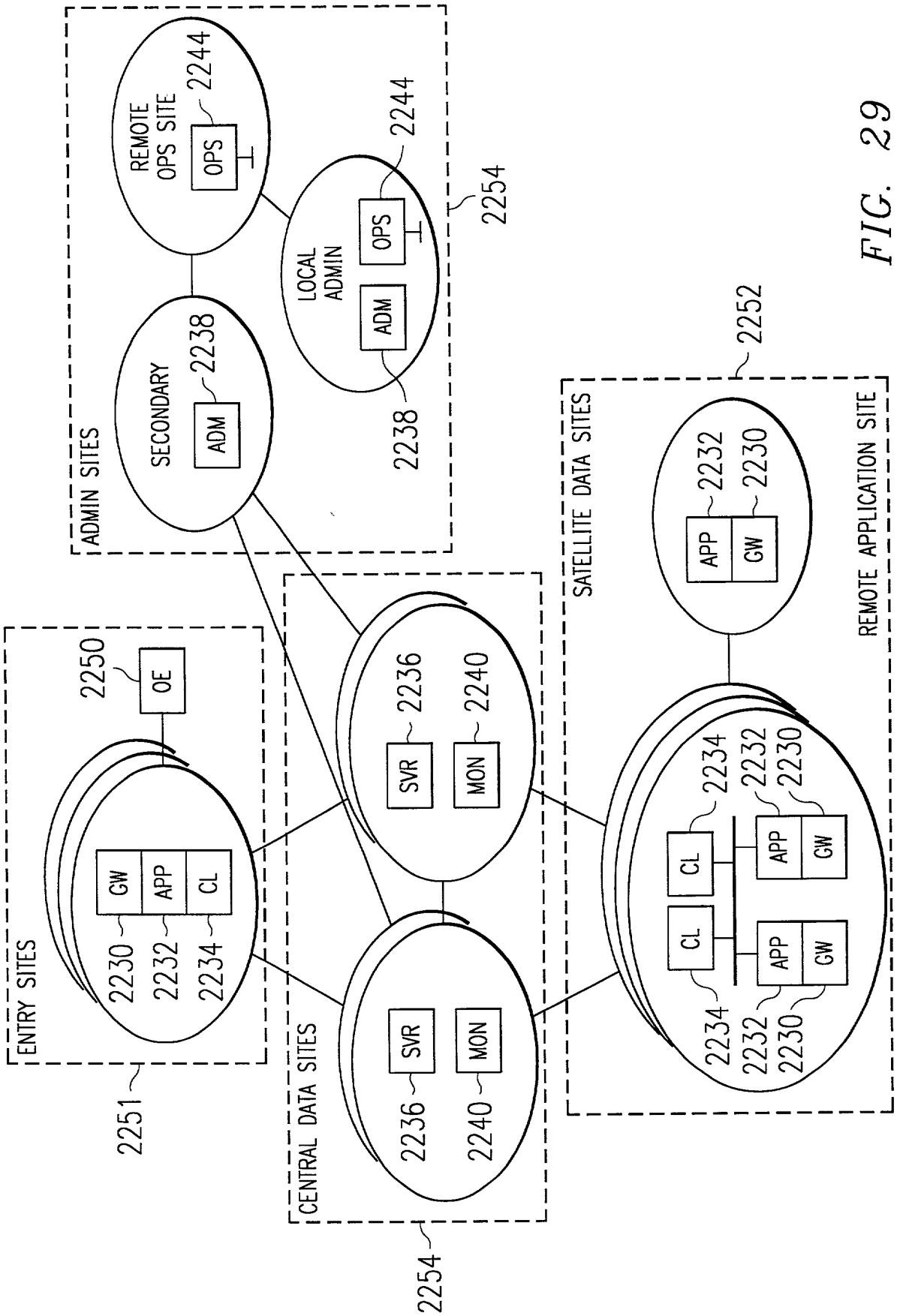

ADMIN SITES
REMOTE OPS SITE
OPS
2244
SECONDARY
ADM
2238
LOCAL ADMIN
OPS
ADM
2254
ENTRY SITES
OE
2250
GW
APP
CL
2230
2232
2234
2251
CENTRAL DATA SITES
SVR
MON
2236
2240
2254
SATELLITE DATA SITES
REMOTE APPLICATION SITE
2252

FIG. 29

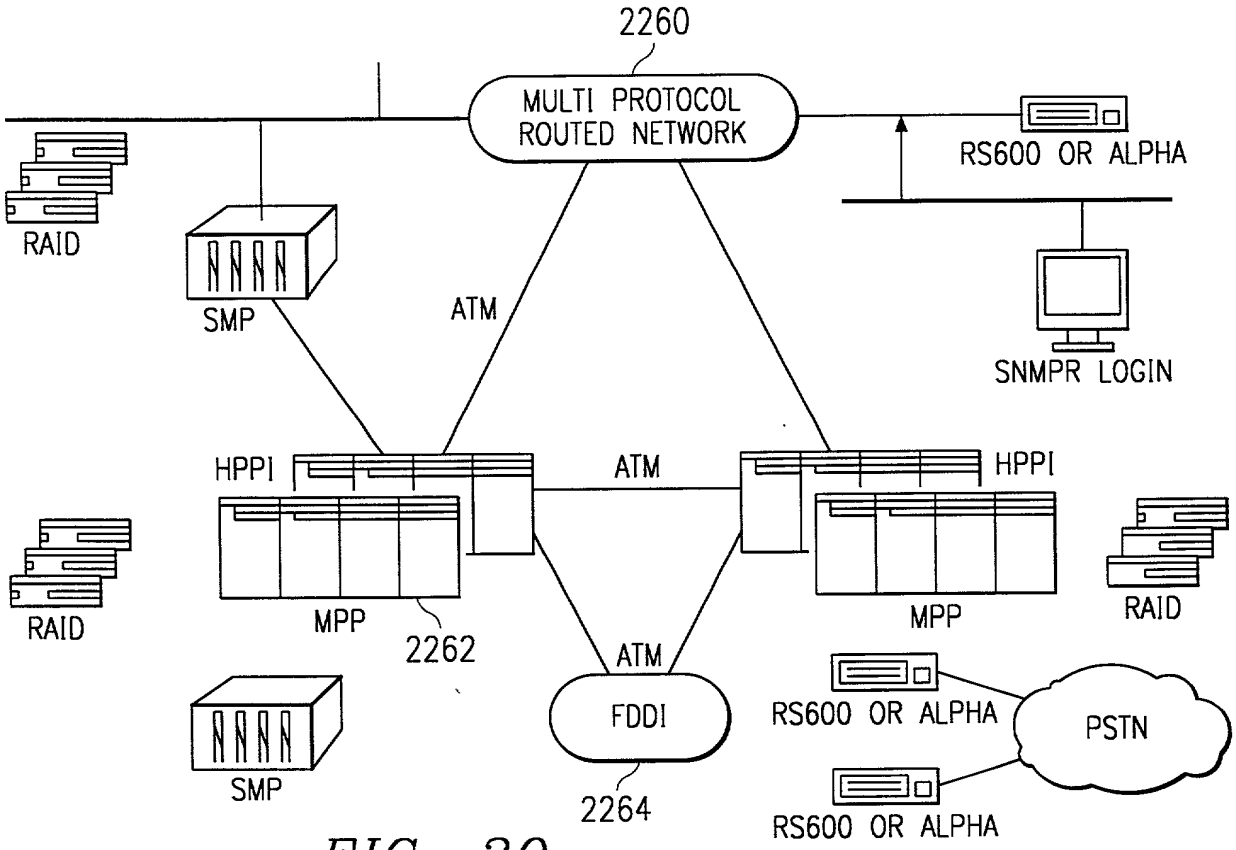

2260
MULTI PROTOCOL ROUTED NETWORK
RS600 OR ALPHA
RAID
SMP
ATM
SNMPR LOGIN
HPPI
ATM
HPPI
RAID
MPP
2262
MPP
RAID
ATM
SMP
FDDI
RS600 OR ALPHA
PSTN
2264
RS600 OR ALPHA

FIG. 30

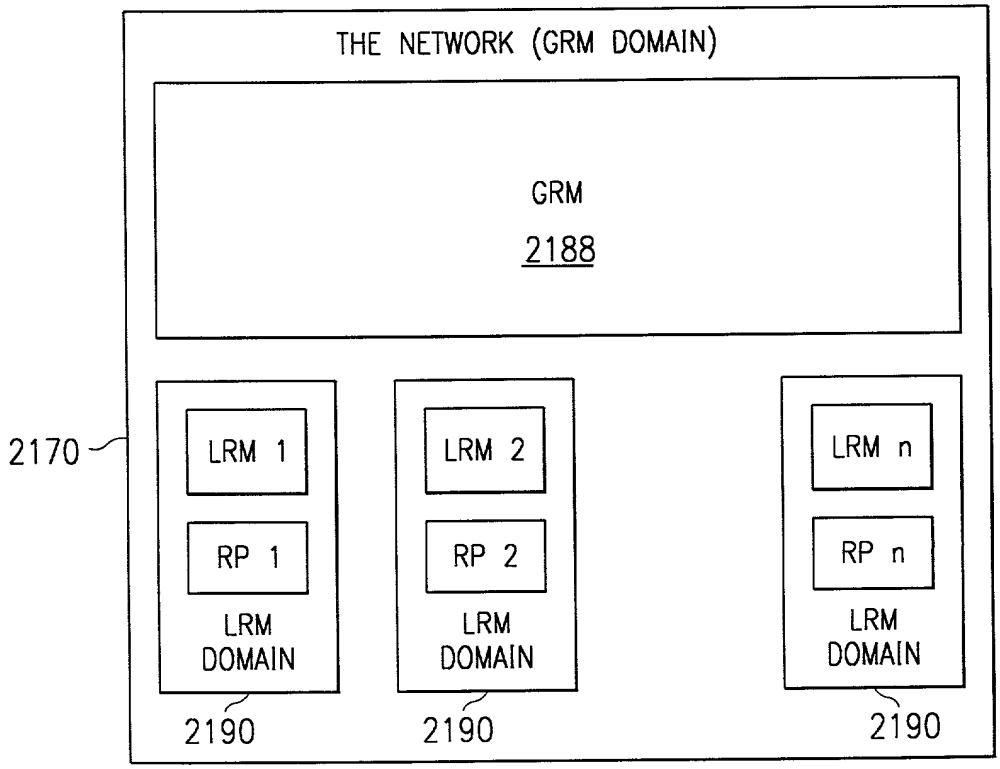

THE NETWORK (GRM DOMAIN)
GRM
2188
2170
LRM 1
RP 1
LRM DOMAIN
LRM 2
RP 2
LRM DOMAIN
LRM n
RP n
LRM DOMAIN
2190
2190
2190

FIG. 31

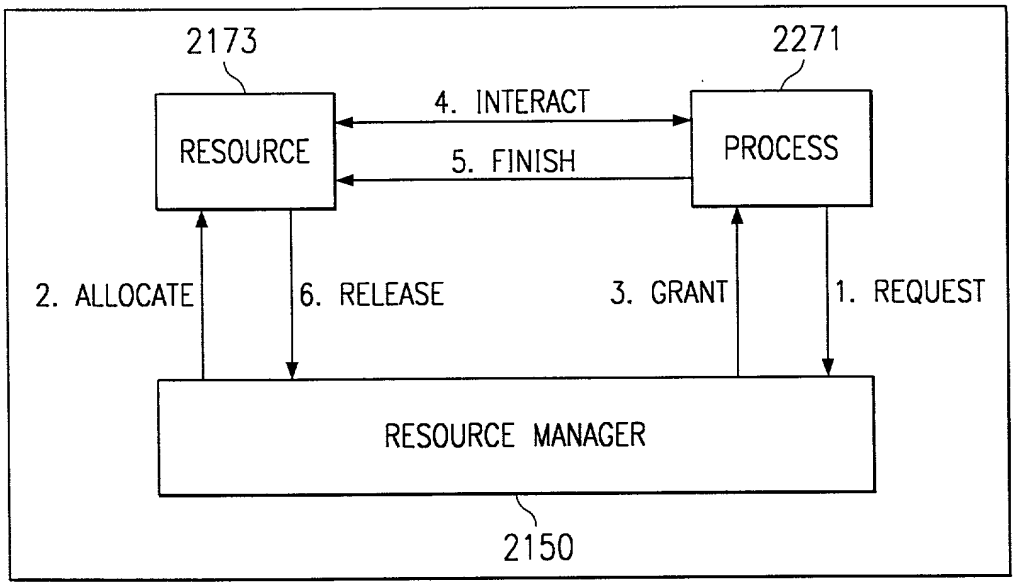

2173
2271
RESOURCE
4. INTERACT
5. FINISH
PROCESS
2. ALLOCATE
6. RELEASE
3. GRANT
1. REQUEST
RESOURCE MANAGER
2150

FIG. 32

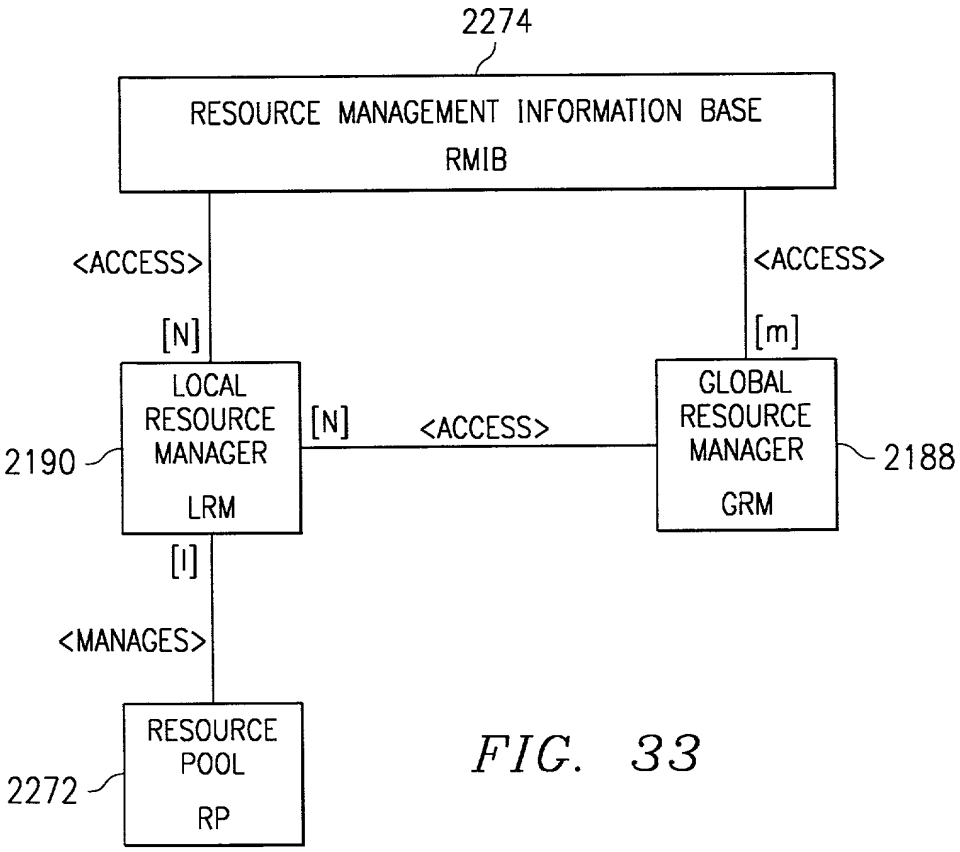

2274
RESOURCE MANAGEMENT INFORMATION BASE
RMIB
<ACCESS>
[N]
<ACCESS>
[m]
LOCAL RESOURCE MANAGER
LRM
2190
[N]
<ACCESS>
GLOBAL RESOURCE MANAGER
GRM
2188
[1]
<MANAGES>
RESOURCE POOL
RP
2272

FIG. 33

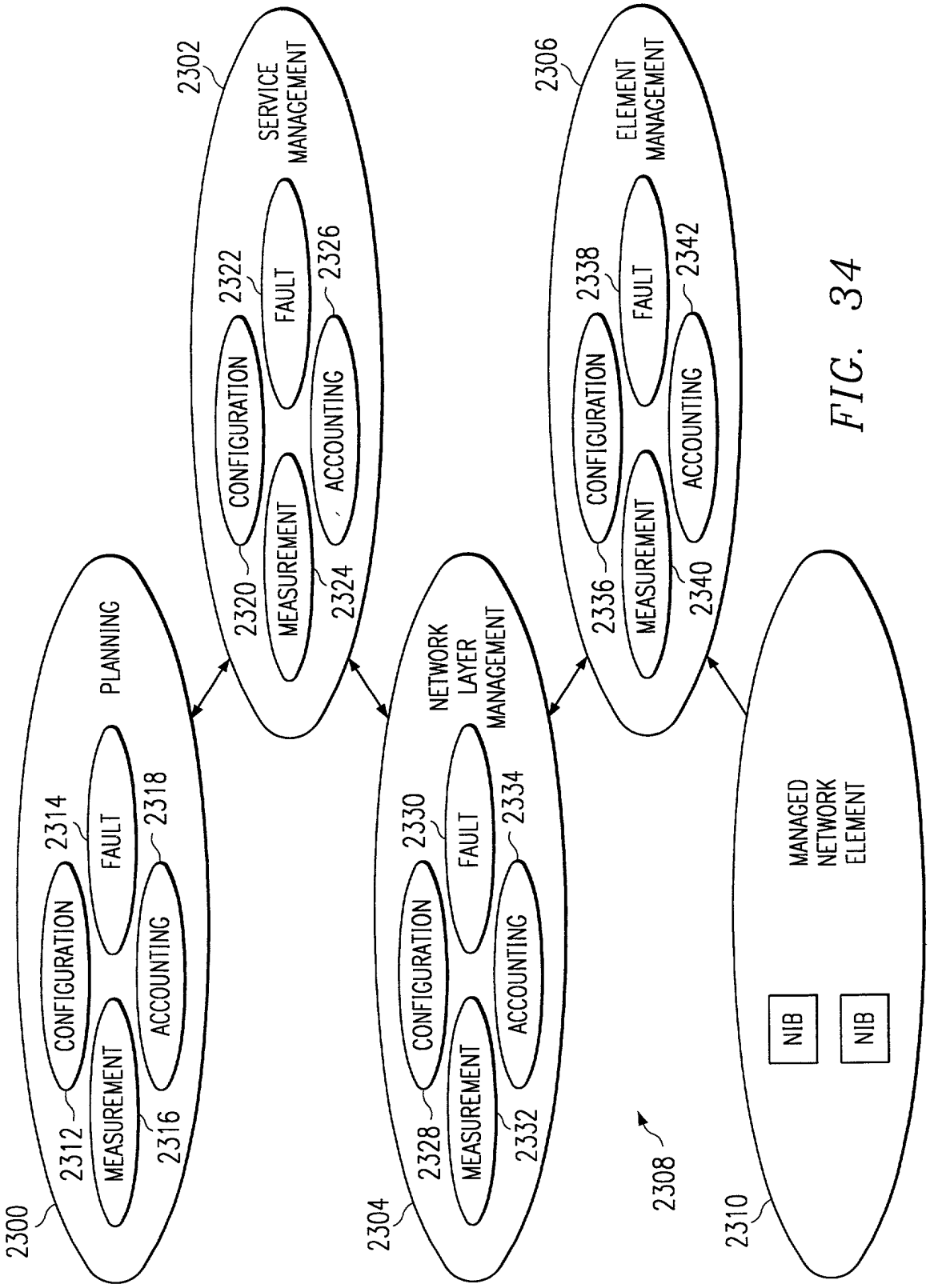

2300
PLANNING
2312
CONFIGURATION
2314
FAULT
MEASUREMENT
2316
ACCOUNTING
2318
2302
SERVICE MANAGEMENT
2320
CONFIGURATION
2322
FAULT
MEASUREMENT
2324
ACCOUNTING
2326
2304
NETWORK LAYER MANAGEMENT
2328
CONFIGURATION
2330
FAULT
MEASUREMENT
2332
ACCOUNTING
2334
2306
ELEMENT MANAGEMENT
2336
CONFIGURATION
2338
FAULT
MEASUREMENT
2340
ACCOUNTING
2342
2308
2310
MANAGED NETWORK ELEMENT
NIB
NIB

FIG. 34

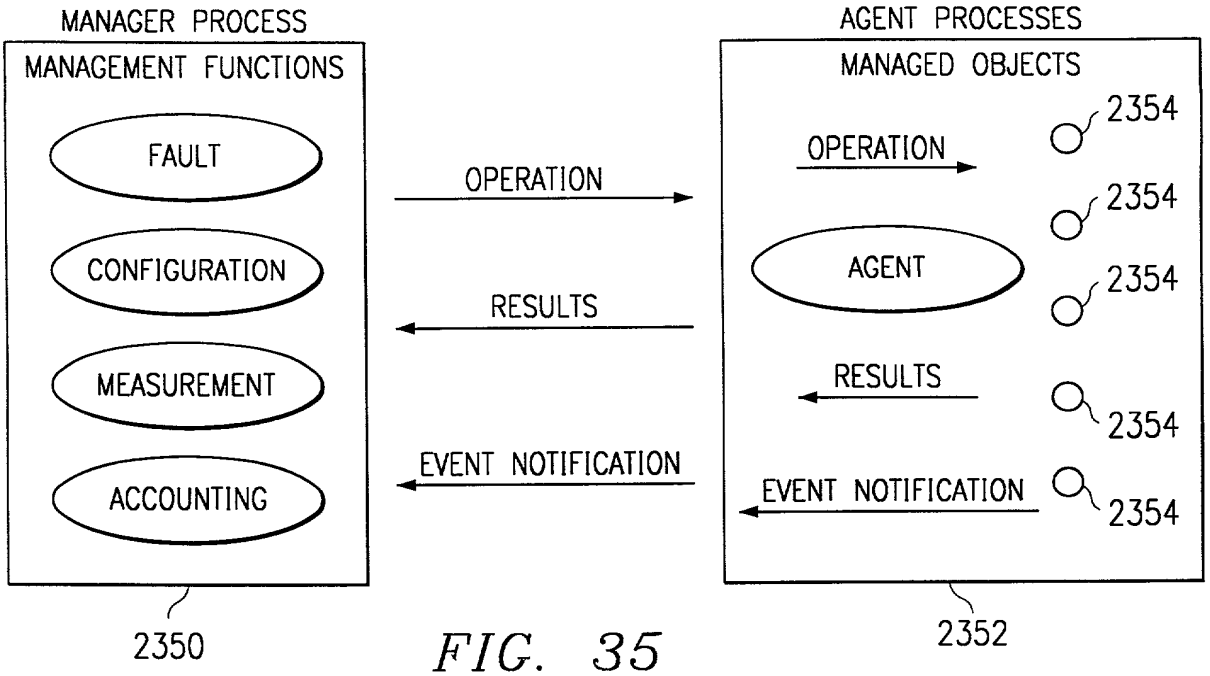

MANAGER PROCESS
MANAGEMENT FUNCTIONS
FAULT
CONFIGURATION
MEASUREMENT
ACCOUNTING
OPERATION
RESULTS
EVENT NOTIFICATION
AGENT PROCESSES
MANAGED OBJECTS
OPERATION
AGENT
RESULTS
EVENT NOTIFICATION
2354
2354
2354
2354
2354
2350
2352

FIG. 35

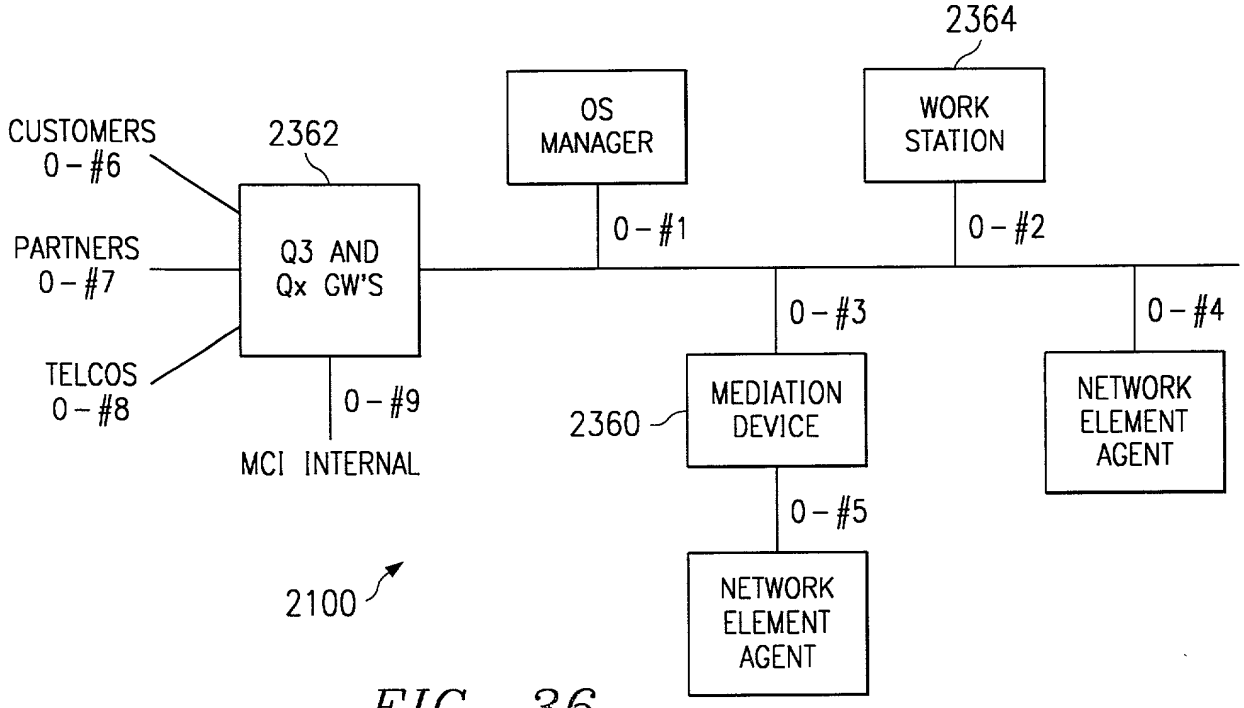

2364
CUSTOMERS
0 - #6
2362
OS
MANAGER
WORK
STATION
PARTNERS
0 - #7
Q3 AND
Qx GW'S
0 - #1
0 - #2
0 - #3
0 - #4
TELCOS
0 - #8
0 - #9
MCI INTERNAL
2360
MEDIATION
DEVICE
NETWORK
ELEMENT
AGENT
0 - #5
NETWORK
ELEMENT
AGENT
2100

FIG. 36

FOMT90"E8867860

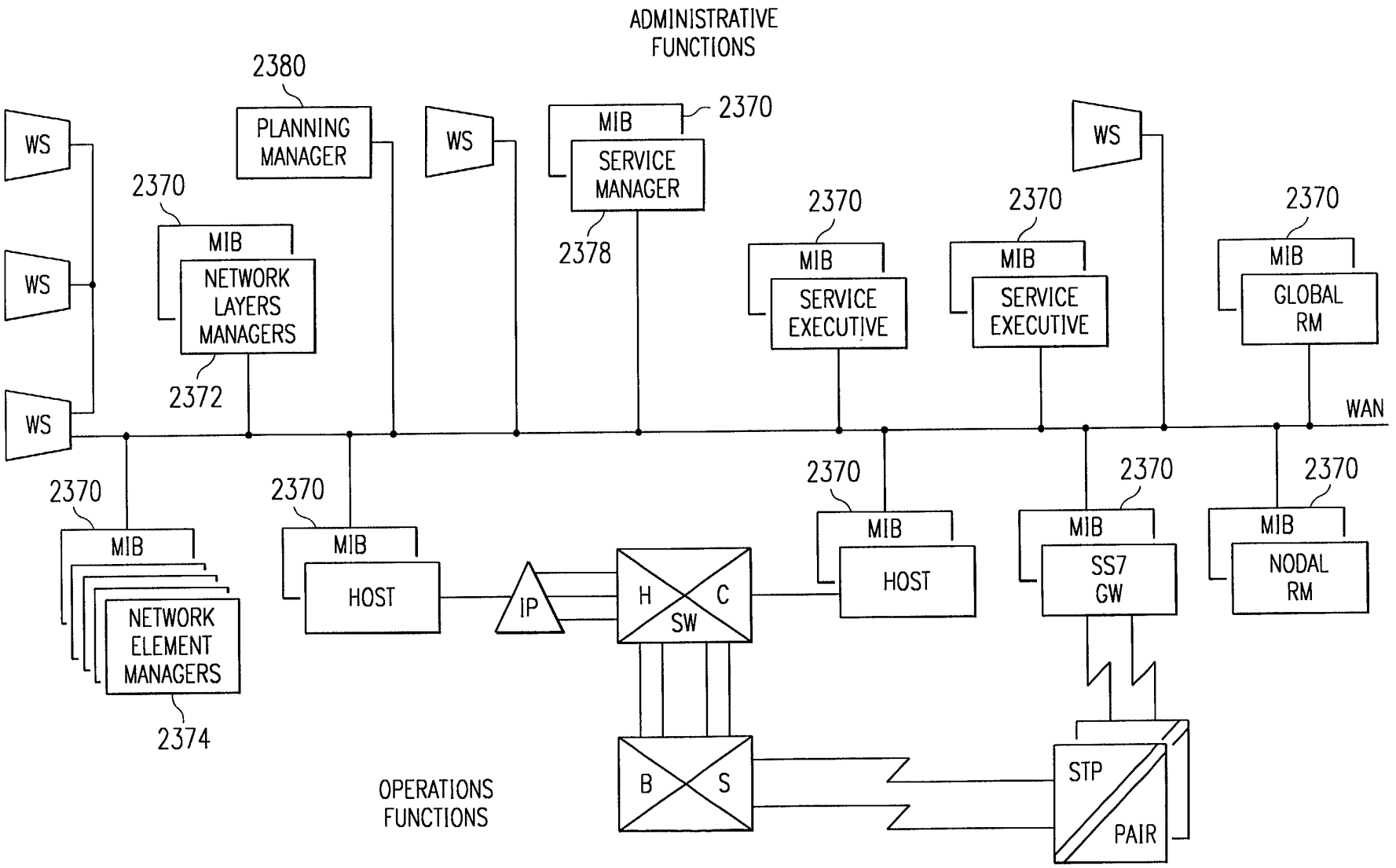


FIG. 37

Docket No.: VON-96-046-C1 Appln No.: NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOTT et al
Sheets of Drawings: 32 of 124

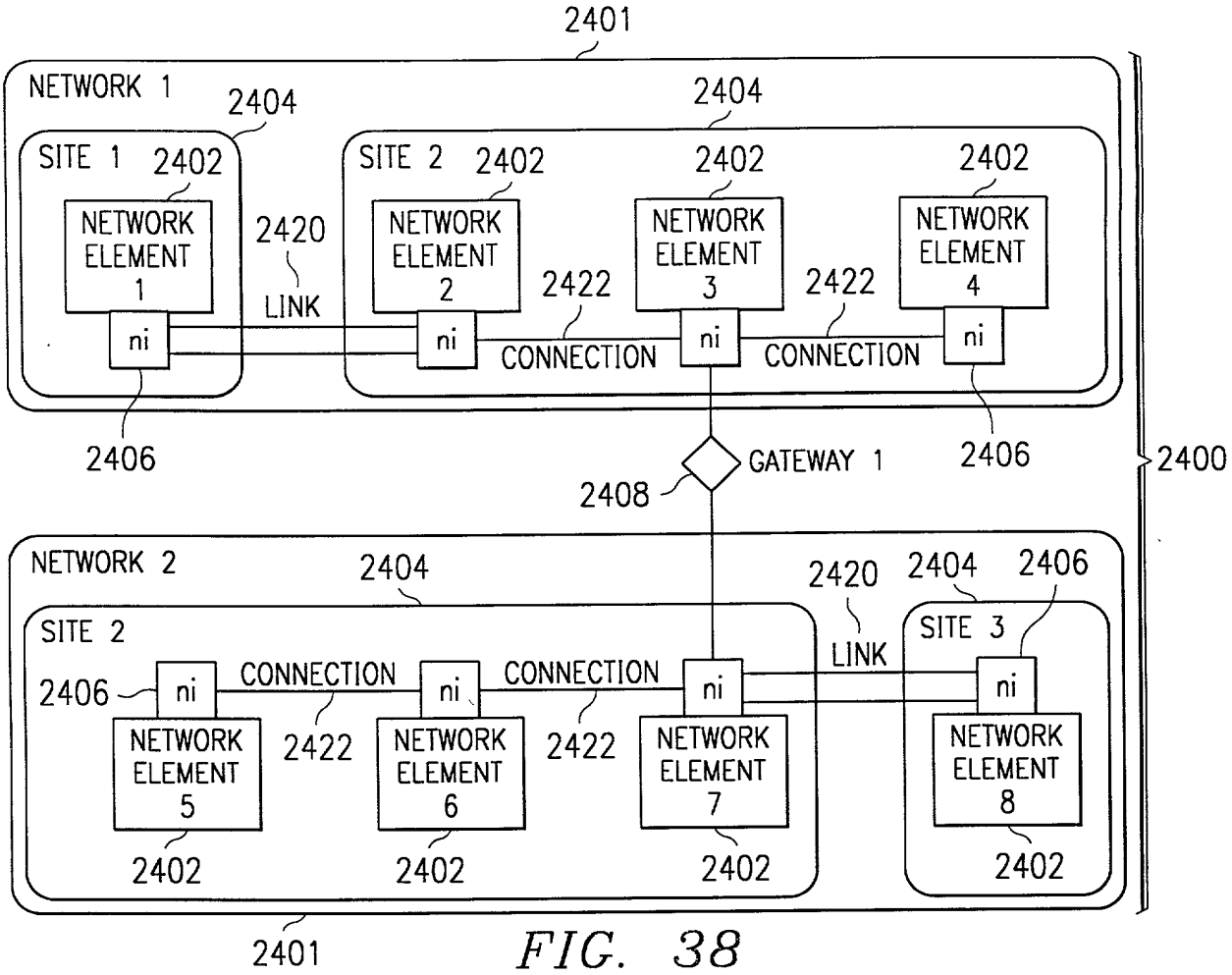

2401
NETWORK 1
2404
SITE 1
2402
NETWORK ELEMENT 1
2420
LINK
ni
2406
SITE 2
2402
NETWORK ELEMENT 2
2422
CONNECTION
NETWORK ELEMENT 3
NETWORK ELEMENT 4
2408
GATEWAY 1
2400
NETWORK 2
SITE 2
2406
CONNECTION
NETWORK ELEMENT 5
NETWORK ELEMENT 6
NETWORK ELEMENT 7
SITE 3
NETWORK ELEMENT 8

FIG. 38

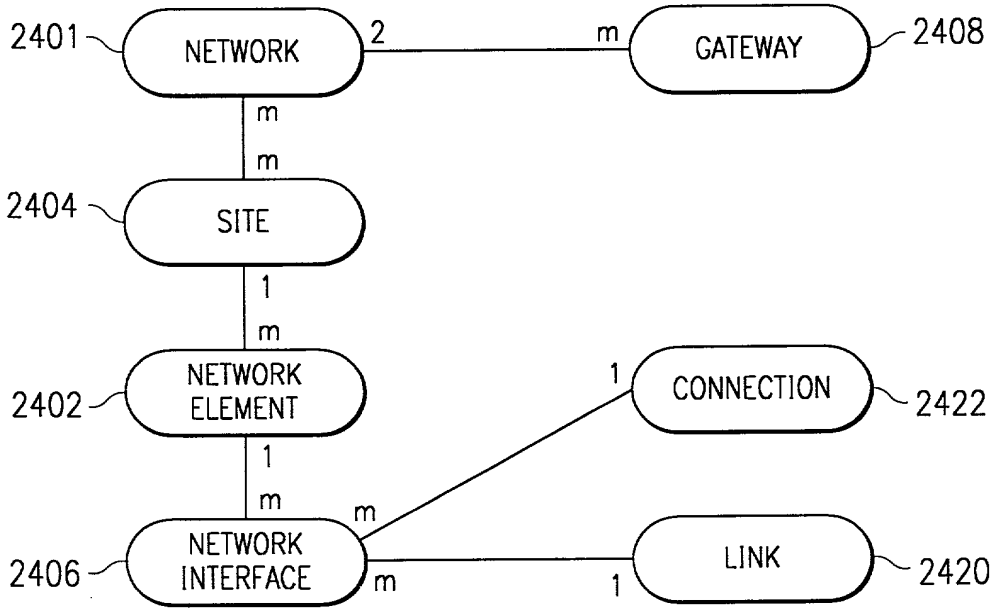

2401
NETWORK
2
m
GATEWAY
2408
m
m
2404
SITE
1
m
2402
NETWORK ELEMENT
1
CONNECTION
2422
1
m
m
NETWORK INTERFACE
2406
m
1
LINK
2420

FIG. 39

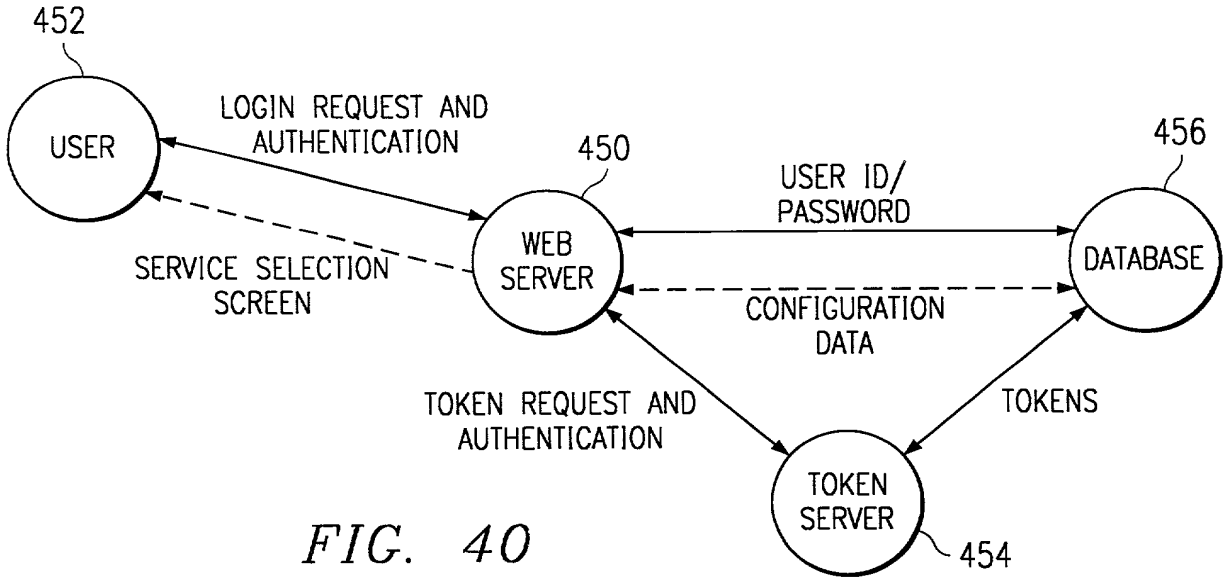

452
USER
LOGIN REQUEST AND AUTHENTICATION
450
WEB SERVER
SERVICE SELECTION SCREEN
USER ID/ PASSWORD
456
DATABASE
CONFIGURATION DATA
TOKEN REQUEST AND AUTHENTICATION
TOKENS
TOKEN SERVER
454

FIG. 40

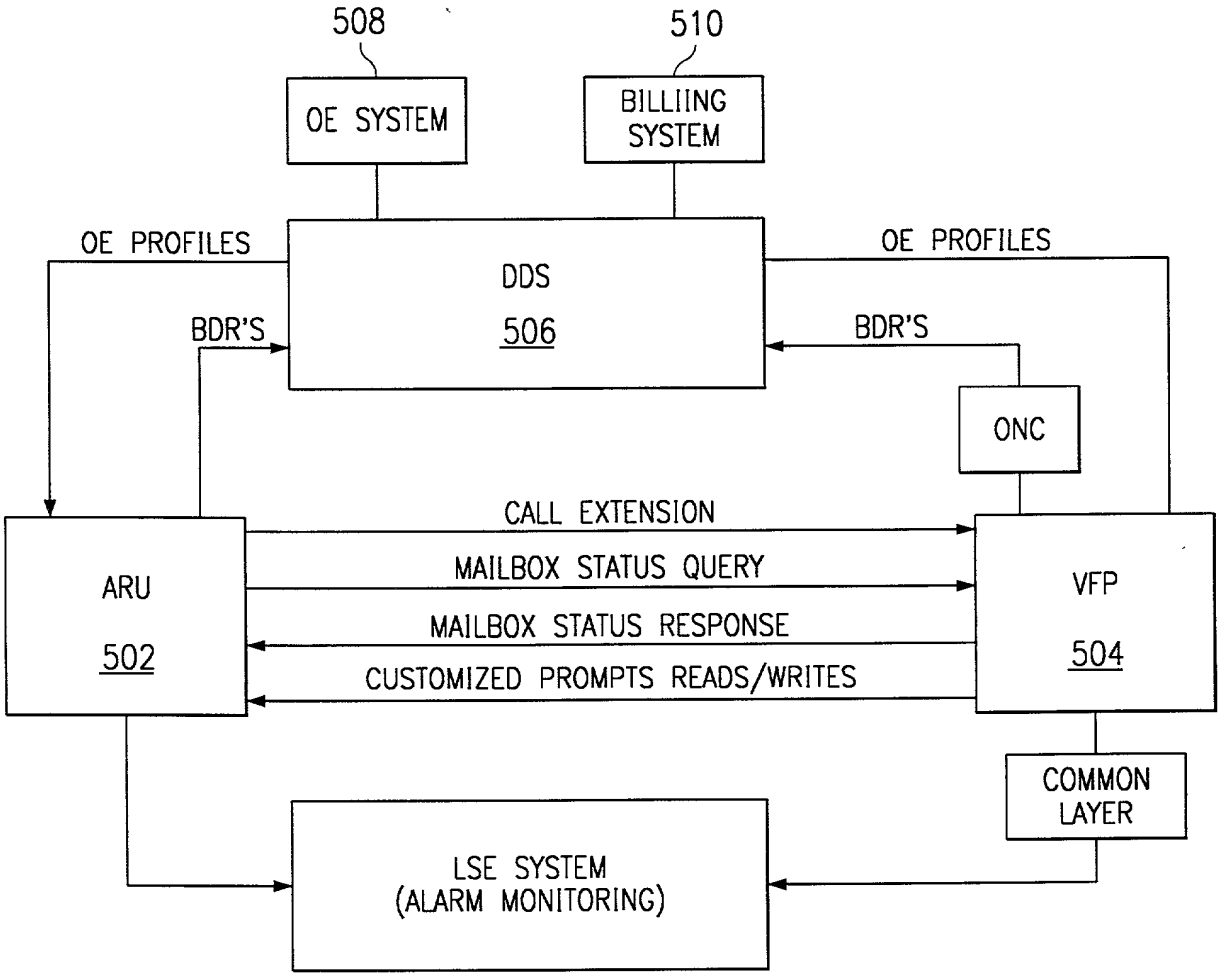
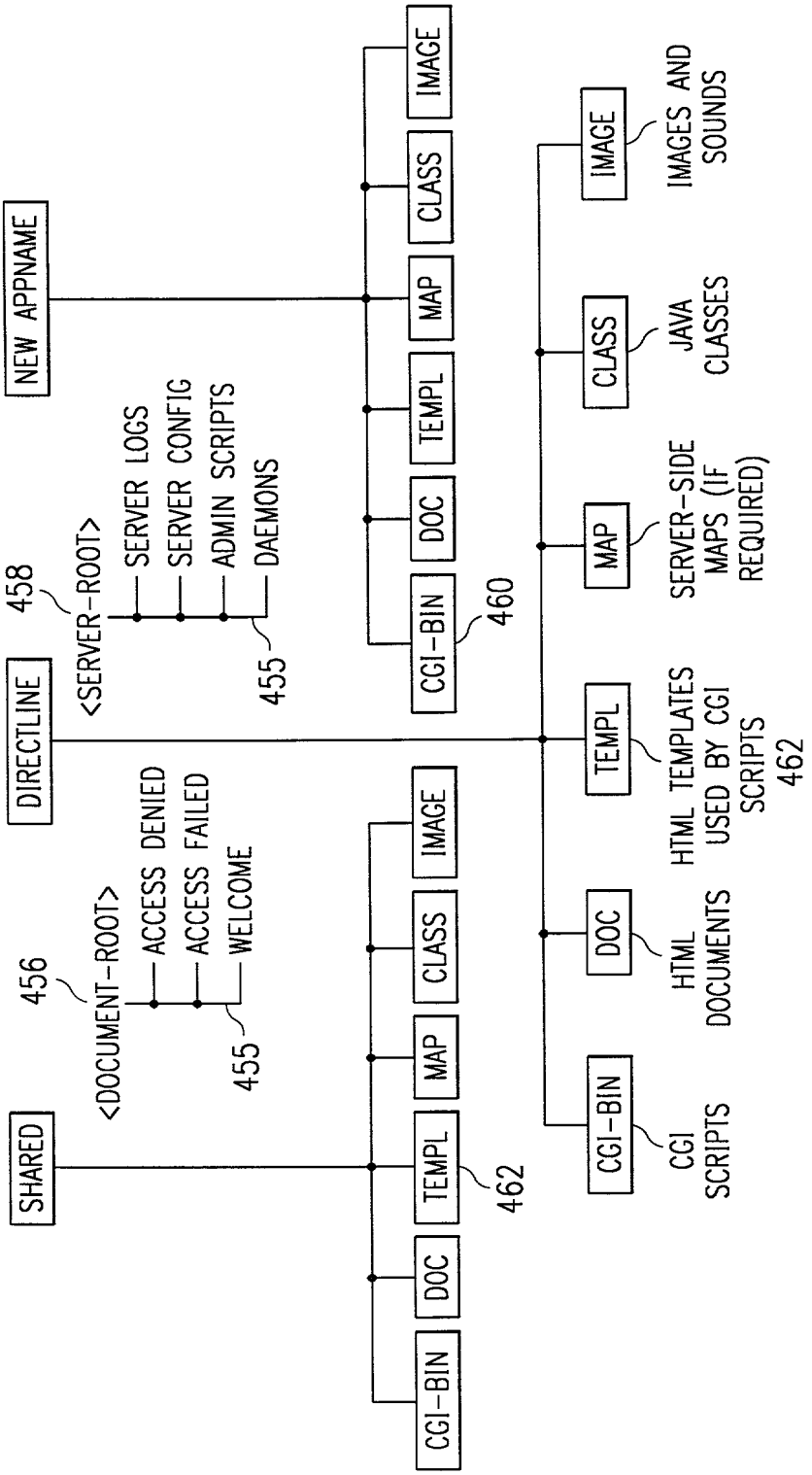

508
OE SYSTEM
510
BILLIING SYSTEM
OE PROFILES
DDS
506
OE PROFILES
BDR'S
BDR'S
ONC
CALL EXTENSION
MAILBOX STATUS QUERY
MAILBOX STATUS RESPONSE
CUSTOMIZED PROMPTS READS/WRITES
ARU
502
VFP
504
COMMON LAYER
LSE SYSTEM
(ALARM MONITORING)

FIG. 43

FIG. 41


SHARED
DIRECTLINE
NEW APPNAME
456
458
460
462
<DOCUMENT-ROOT>
ACCESS DENIED
ACCESS FAILED
WELCOME
455
<SERVER-ROOT>
SERVER LOGS
SERVER CONFIG
ADMIN SCRIPTS
DAEMONS
455
CGI-BIN
DOC
TEMPL
MAP
CLASS
IMAGE
CGI-BIN
DOC
TEMPL
MAP
CLASS
IMAGE
CGI SCRIPTS
HTML DOCUMENTS
HTML TEMPLATES USED BY CGI SCRIPTS
SERVER-SIDE MAPS (IF REQUIRED)
JAVA CLASSES
IMAGES AND SOUNDS

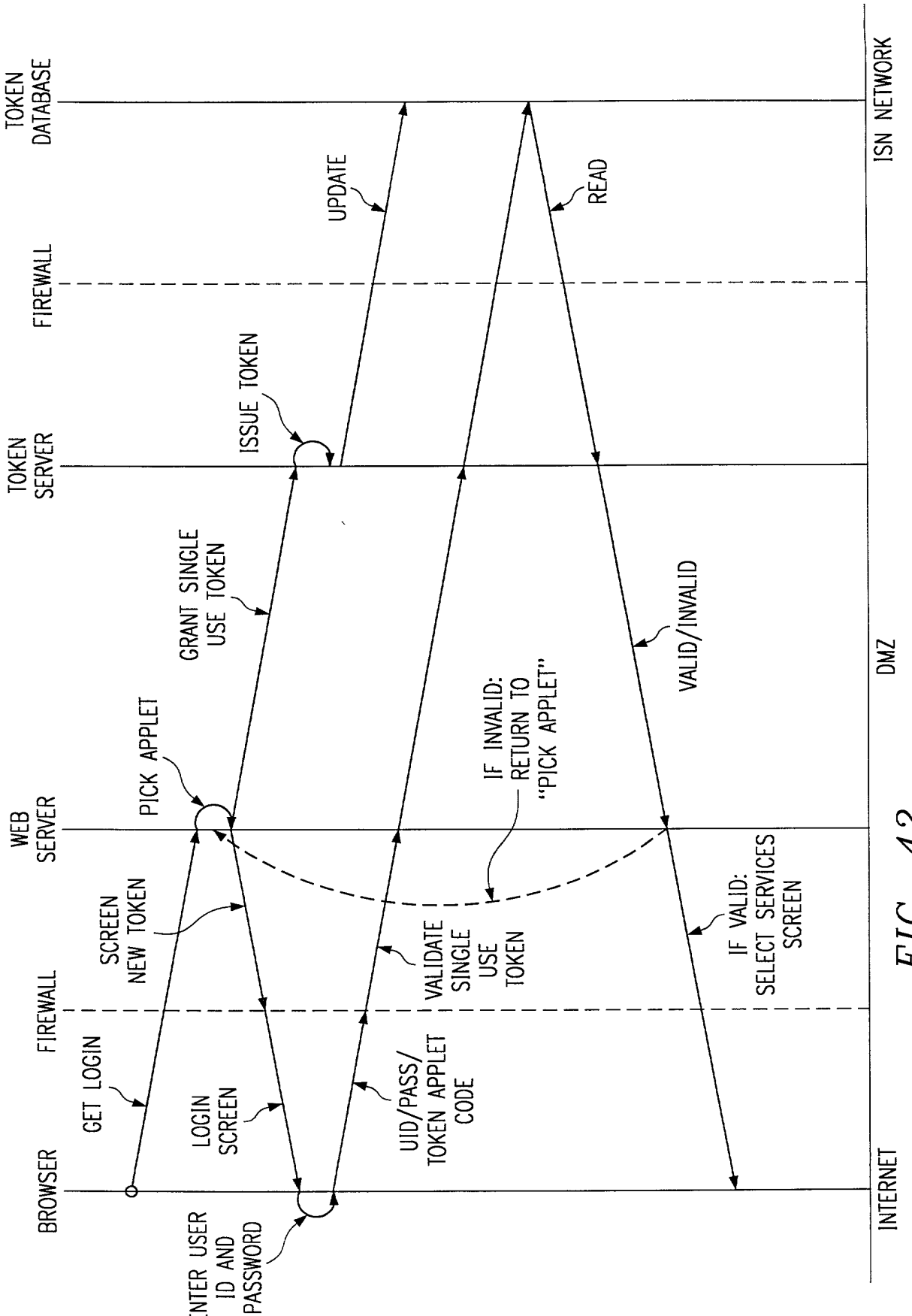

BROWSER
FIREWALL
WEB SERVER
FIREWALL
TOKEN SERVER
TOKEN DATABASE
INTERNET
DMZ
ISN NETWORK
GET LOGIN
LOGIN SCREEN
ENTER USER ID AND PASSWORD
SCREEN NEW TOKEN
PICK APPLET
GRANT SINGLE USE TOKEN
ISSUE TOKEN
UPDATE
UID/PASS/ TOKEN APPLET CODE
VALIDATE SINGLE USE TOKEN
READ
IF INVALID: RETURN TO "PICK APPLET"
VALID/INVALID
IF VALID: SELECT SERVICES SCREEN

FIG. 42

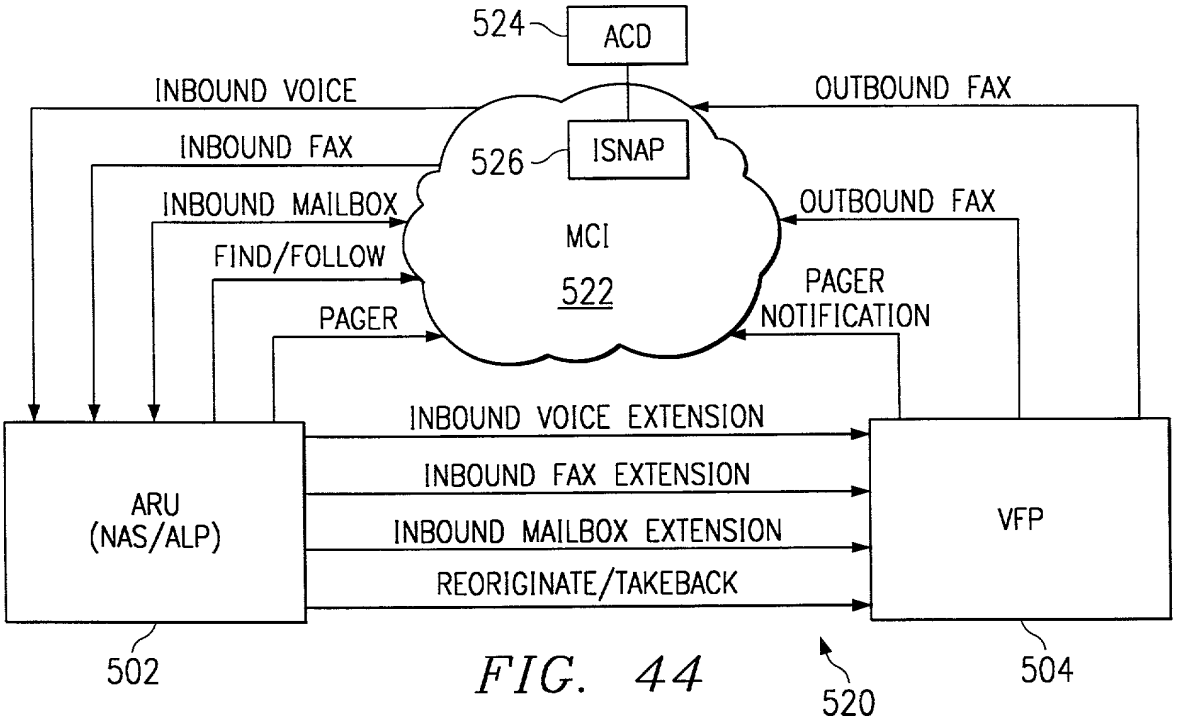

524
ACD
INBOUND VOICE
OUTBOUND FAX
INBOUND FAX
526
ISNAP
INBOUND MAILBOX
OUTBOUND FAX
MCI
522
FIND/FOLLOW
PAGER NOTIFICATION
PAGER
INBOUND VOICE EXTENSION
INBOUND FAX EXTENSION
ARU (NAS/ALP)
INBOUND MAILBOX EXTENSION
VFP
REORIGINATE/TAKEBACK
502
504
520

FIG. 44

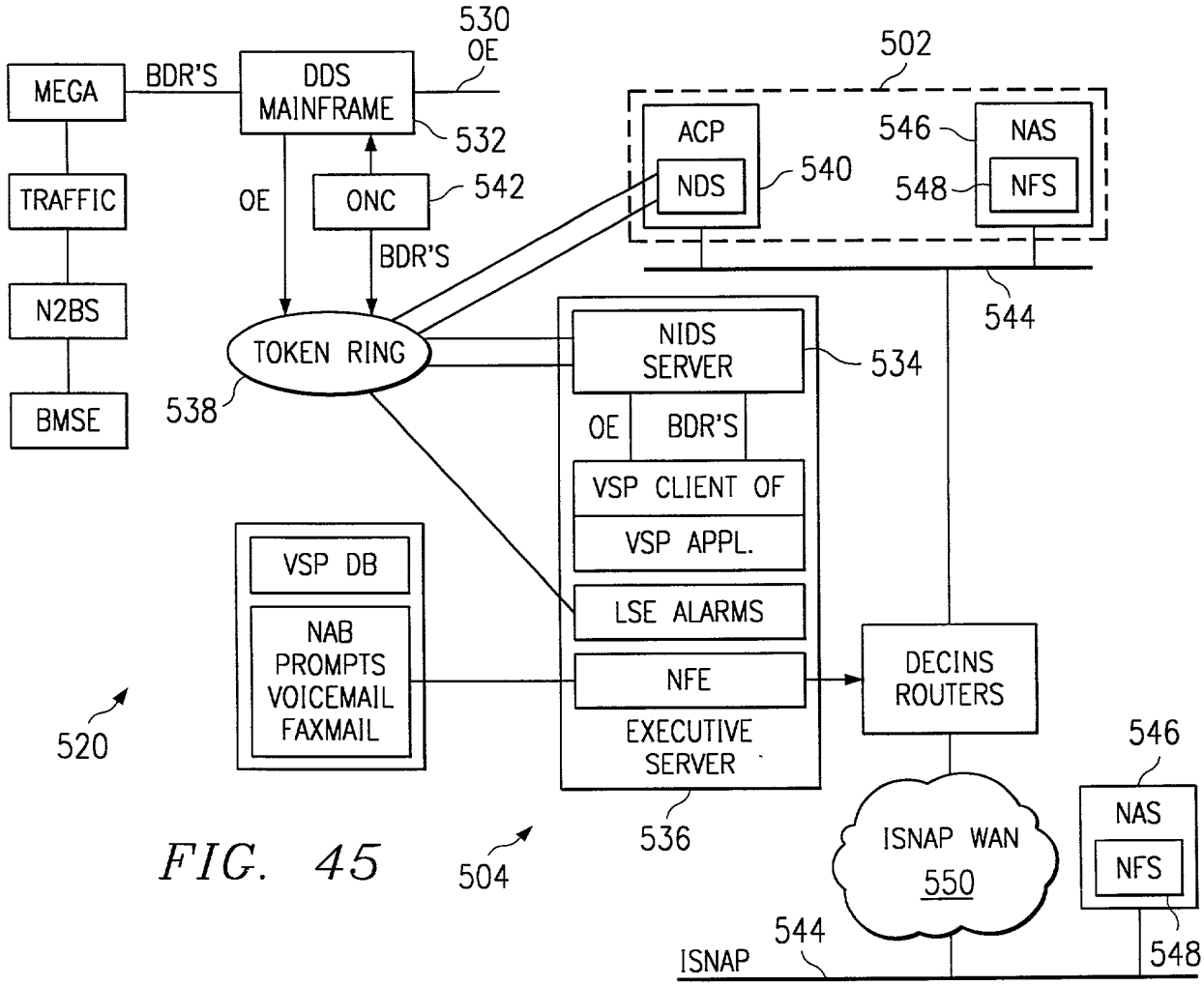

530
OE
502
MEGA
BDR'S
DDS MAINFRAME
532
ACP
546
NAS
NDS
540
548
NFS
TRAFFIC
OE
ONC
542
BDR'S
N2BS
544
TOKEN RING
NIDS SERVER
534
538
BMSE
OE
BDR'S
VSP CLIENT OF
VSP APPL.
VSP DB
LSE ALARMS
NAB PROMPTS VOICEMAIL FAXMAIL
NFE
DECINS ROUTERS
520
EXECUTIVE SERVER
546
536
ISNAP WAN
550
NAS
NFS
504
544
548
ISNAP

FIG. 45

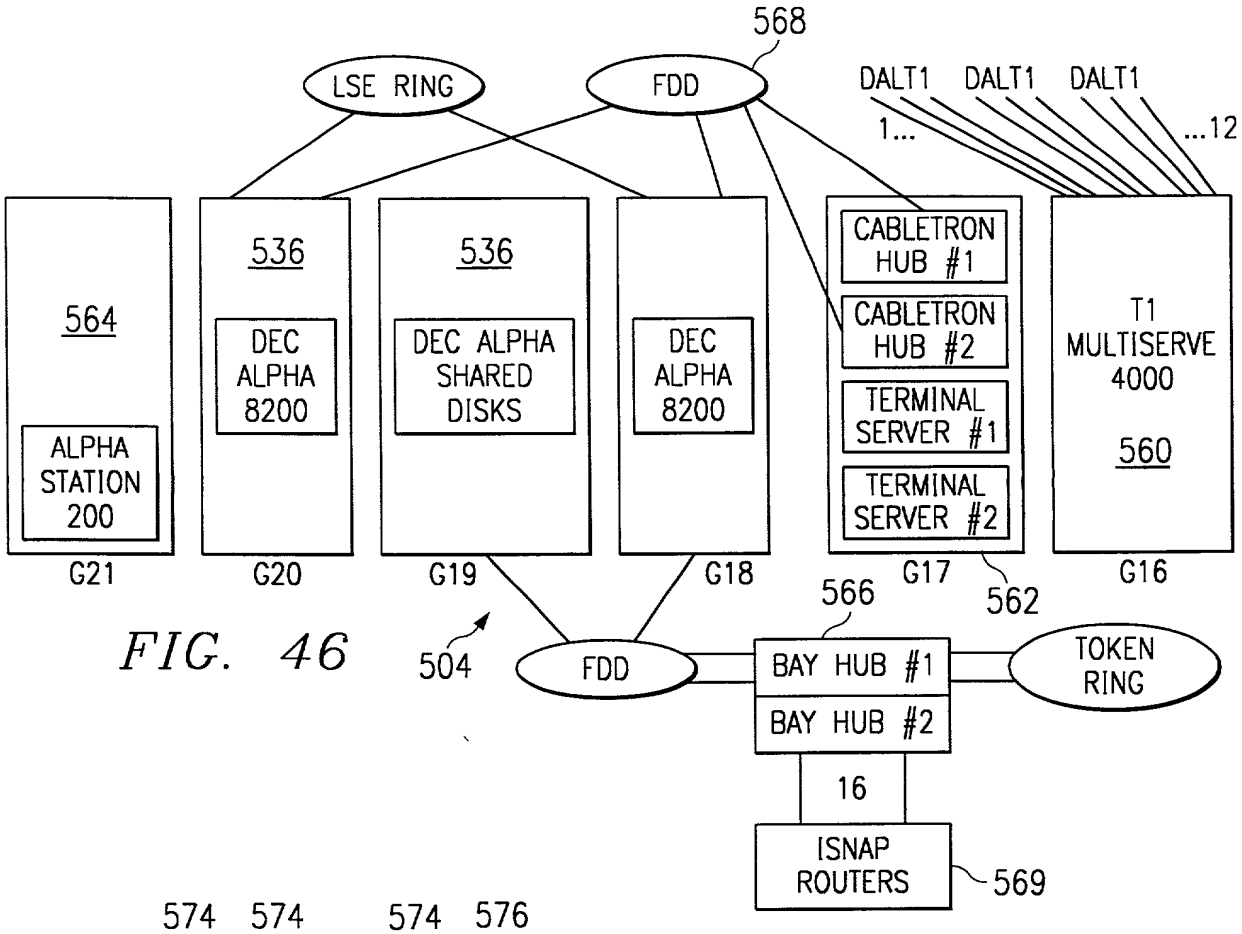


FIG. 46

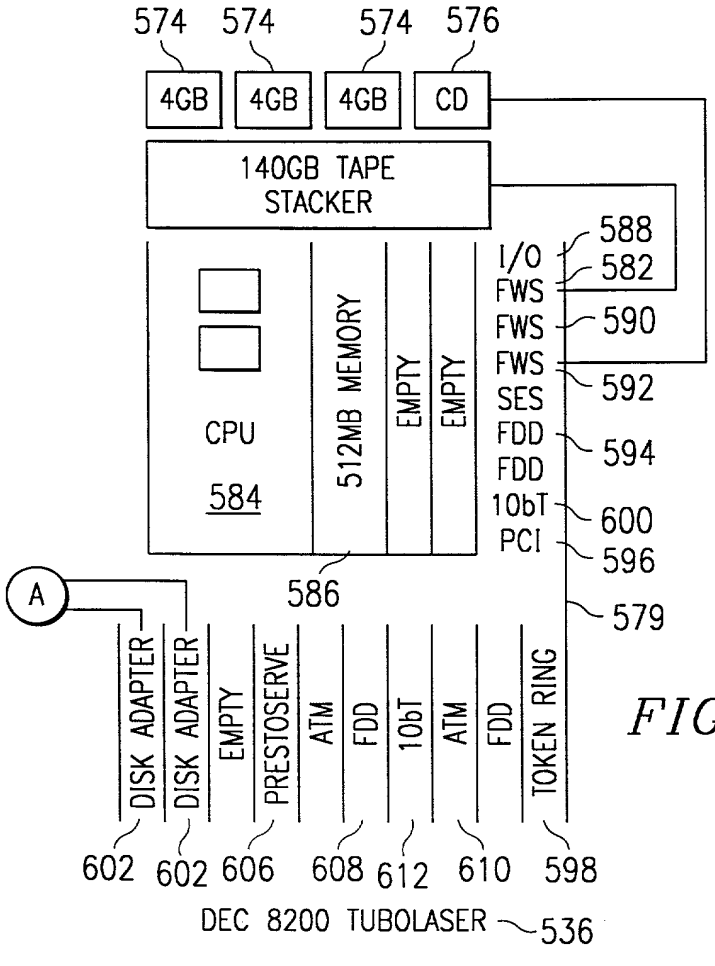


FIG. 48B

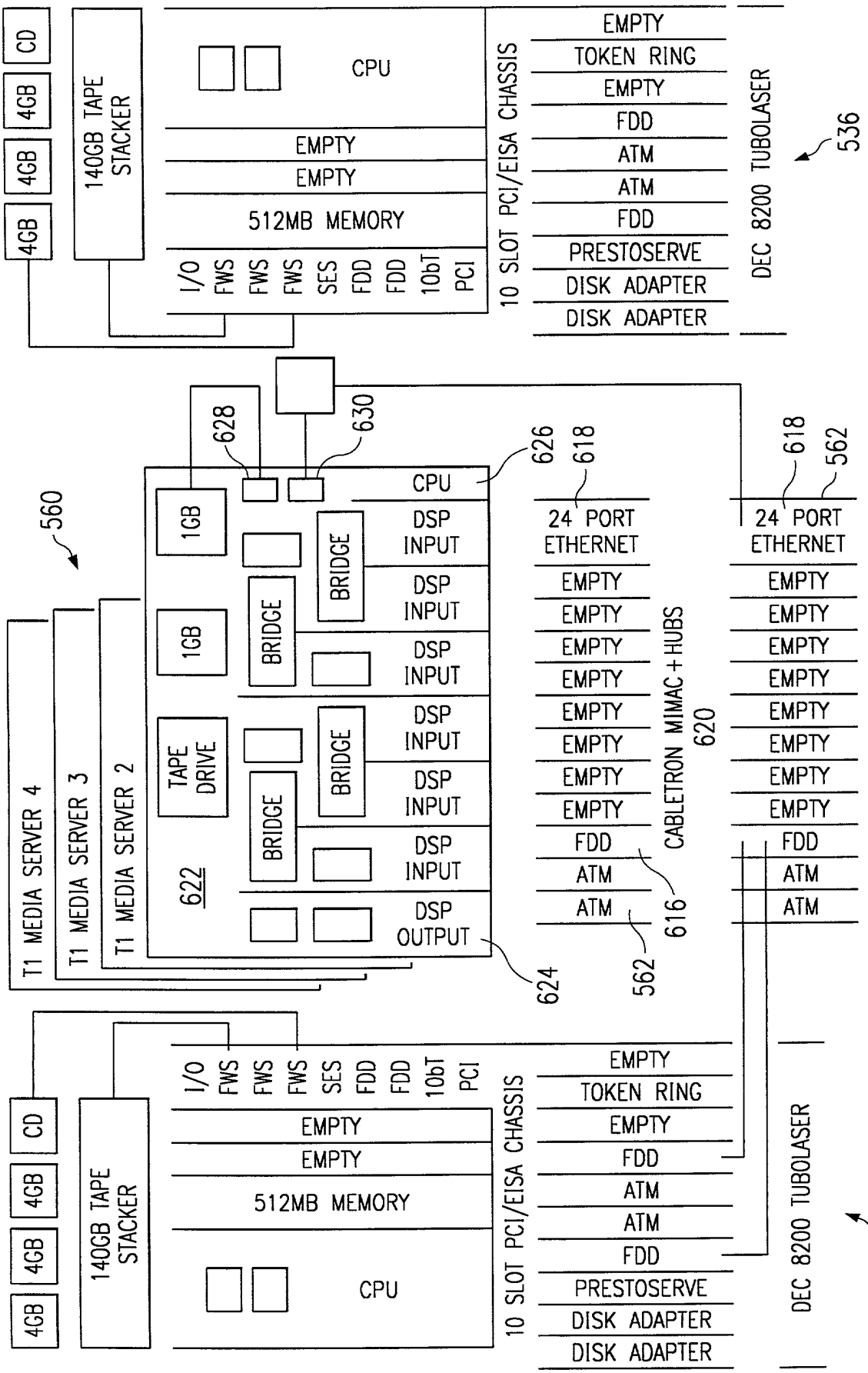

CD
4GB
4GB
4GB
140GB TAPE STACKER
CPU
EMPTY
EMPTY
512MB MEMORY
I/O FWS FWS FWS SES FDD FDD 10bT PCI
10 SLOT PCI/EISA CHASSIS
EMPTY
TOKEN RING
EMPTY
FDD
ATM
ATM
FDD
PRESTOSERVE
DISK ADAPTER
DISK ADAPTER
DEC 8200 TUBOLASER
536
560
628
630
626
618
562
1GB
1GB
TAPE DRIVE
BRIDGE
BRIDGE
BRIDGE
BRIDGE
CPU
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP OUTPUT
622
624
24 PORT ETHERNET
24 PORT ETHERNET
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
EMPTY
FDD
ATM
ATM
CABLETRON MIMAC + HUBS
620
616
562
T1 MEDIA SERVER 4
T1 MEDIA SERVER 3
T1 MEDIA SERVER 2
CD
4GB
4GB
4GB
140GB TAPE STACKER
I/O FWS FWS FWS SES FDD FDD 10bT PCI
EMPTY
EMPTY
512MB MEMORY
CPU
10 SLOT PCI/EISA CHASSIS
EMPTY
TOKEN RING
EMPTY
FDD
ATM
ATM
FDD
PRESTOSERVE
DISK ADAPTER
DISK ADAPTER
DEC 8200 TUBOLASER
536

FIG. 47

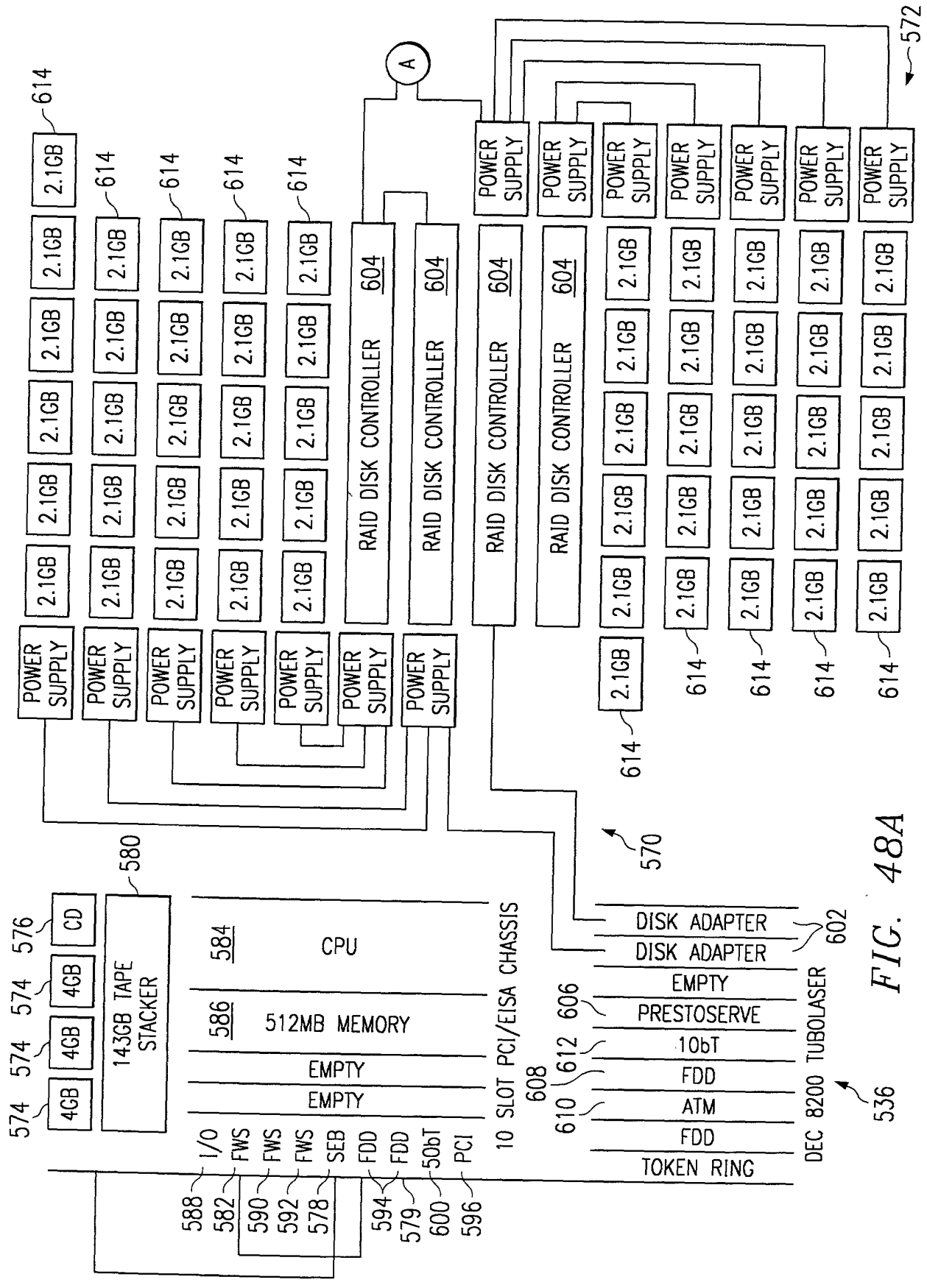

572
A
614
2.1GB
POWER SUPPLY
RAID DISK CONTROLLER 604
570
580
576
574
CD
4GB
143GB TAPE STACKER
584
CPU
586
512MB MEMORY
EMPTY
EMPTY
10 SLOT PCI/EISA CHASSIS
608
I/O
FWS
SEB
FDD
50bT
PCI
588
582
590
592
578
594
579
600
596
DISK ADAPTER
602
EMPTY
606
PRESTOSERVE
612
10bT
FDD
610
ATM
FDD
TOKEN RING
DEC 8200 TURBOLASER
536

FIG. 48A

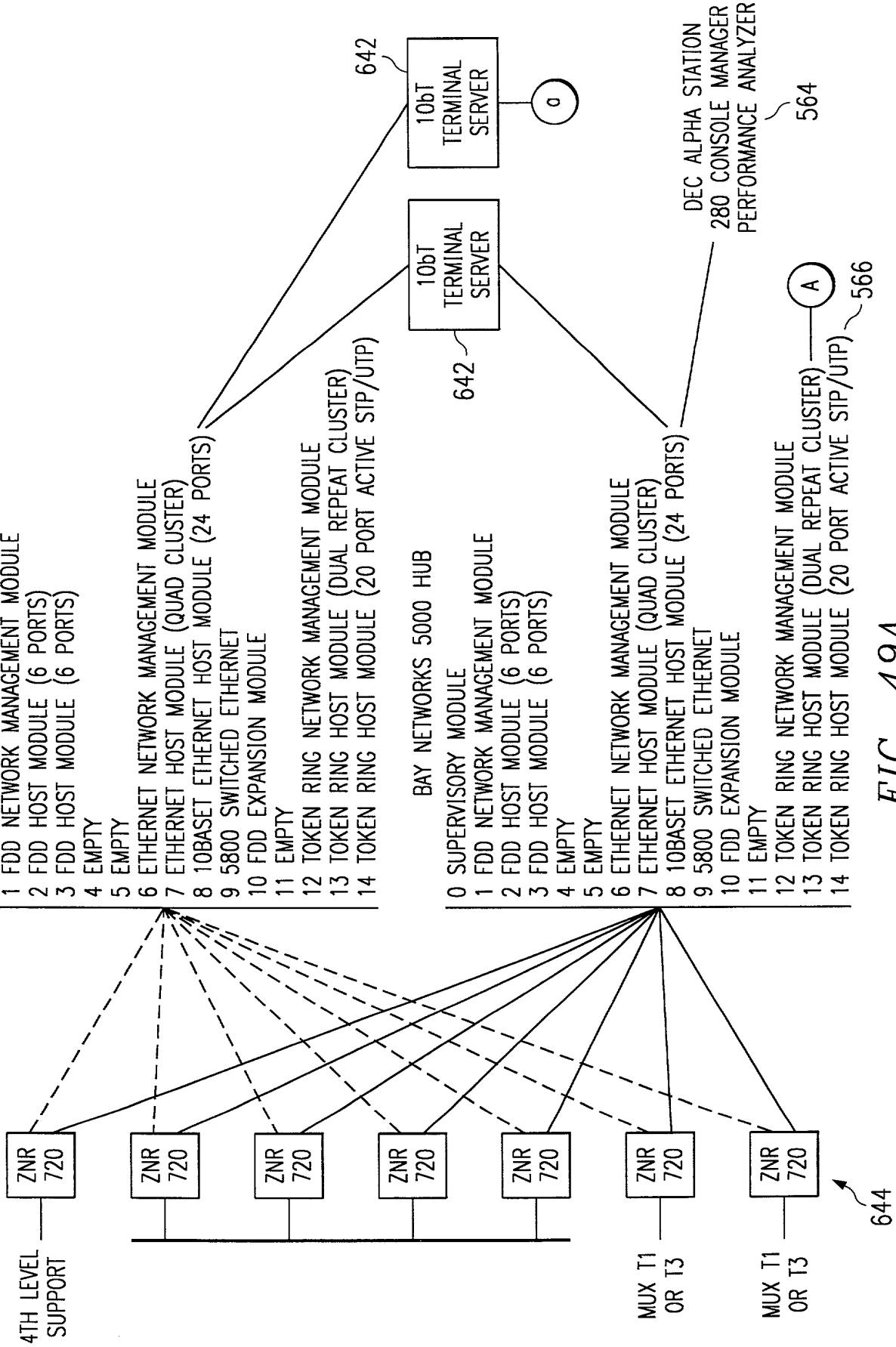

0 SUPERVISORY MODULE
1 FDD NETWORK MANAGEMENT MODULE
2 FDD HOST MODULE (6 PORTS)
3 FDD HOST MODULE (6 PORTS)
4 EMPTY
5 EMPTY
6 ETHERNET NETWORK MANAGEMENT MODULE
7 ETHERNET HOST MODULE (QUAD CLUSTER)
8 10BASET ETHERNET HOST MODULE (24 PORTS)
9 5800 SWITCHED ETHERNET
10 FDD EXPANSION MODULE
11 EMPTY
12 TOKEN RING NETWORK MANAGEMENT MODULE
13 TOKEN RING HOST MODULE (DUAL REPEAT CLUSTER)
14 TOKEN RING HOST MODULE (20 PORT ACTIVE STP/UTP)
642
10bT TERMINAL SERVER
642
10bT TERMINAL SERVER
DEC ALPHA STATION
280 CONSOLE MANAGER
PERFORMANCE ANALYZER
564
BAY NETWORKS 5000 HUB
0 SUPERVISORY MODULE
1 FDD NETWORK MANAGEMENT MODULE
2 FDD HOST MODULE (6 PORTS)
3 FDD HOST MODULE (6 PORTS)
4 EMPTY
5 EMPTY
6 ETHERNET NETWORK MANAGEMENT MODULE
7 ETHERNET HOST MODULE (QUAD CLUSTER)
8 10BASET ETHERNET HOST MODULE (24 PORTS)
9 5800 SWITCHED ETHERNET
10 FDD EXPANSION MODULE
11 EMPTY
12 TOKEN RING NETWORK MANAGEMENT MODULE
13 TOKEN RING HOST MODULE (DUAL REPEAT CLUSTER)
14 TOKEN RING HOST MODULE (20 PORT ACTIVE STP/UTP)
A
566
ZNR 720
ZNR 720
ZNR 720
ZNR 720
ZNR 720
ZNR 720
ZNR 720
644
4TH LEVEL SUPPORT
MUX T1 OR T3
MUX T1 OR T3

FIG. 49A

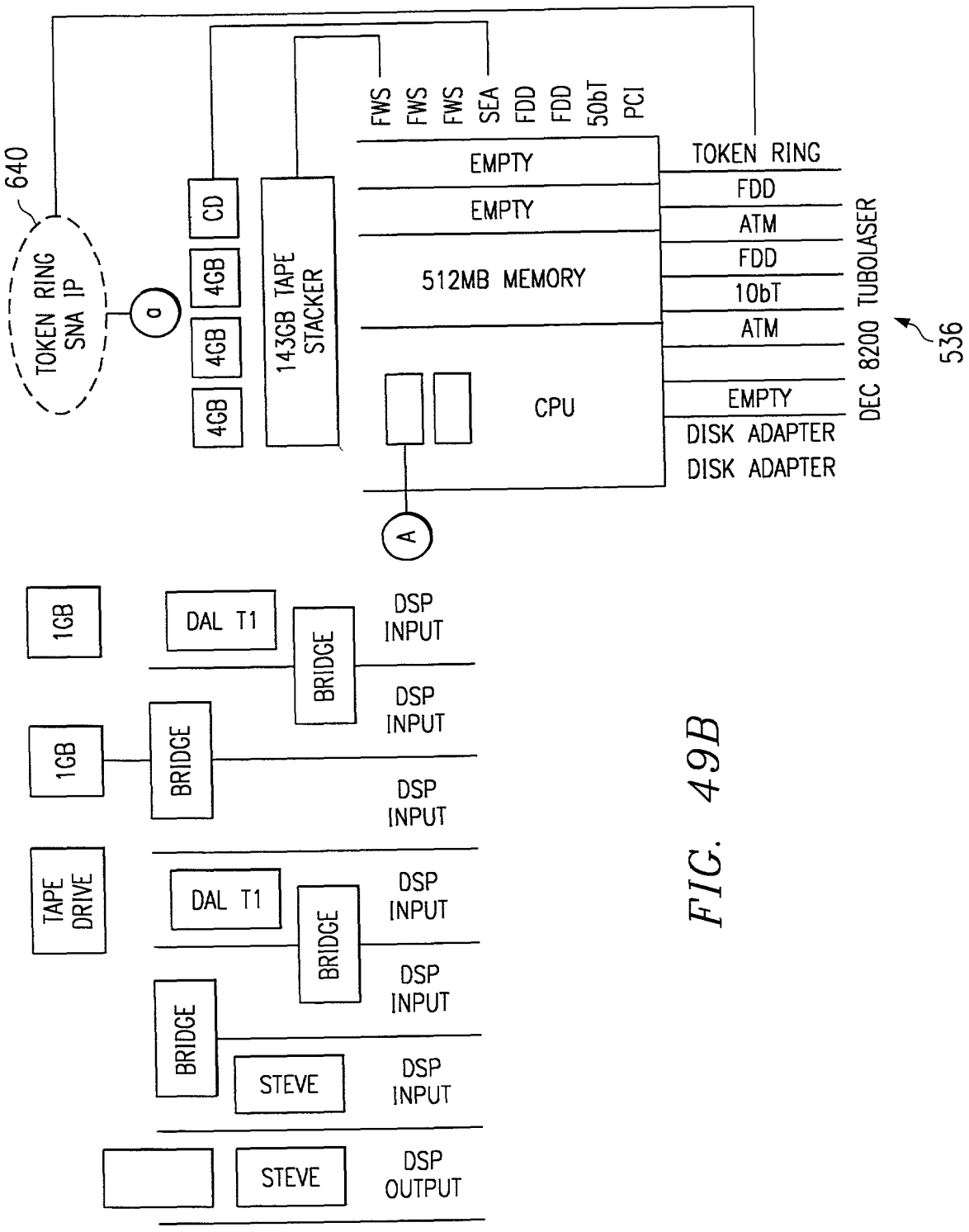

640
TOKEN RING SNA IP
O
CD
4GB
4GB
4GB
143GB TAPE STACKER
FWS
FWS
FWS
SEA
FDD
FDD
50bT
PCI
EMPTY
EMPTY
512MB MEMORY
CPU
A
TOKEN RING
FDD
ATM
FDD
10bT
ATM
EMPTY
DISK ADAPTER
DISK ADAPTER
DEC 8200 TUBOLASER
536
1GB
1GB
TAPE DRIVE
DAL T1
DAL T1
BRIDGE
BRIDGE
BRIDGE
STEVE
STEVE
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP INPUT
DSP OUTPUT

FIG. 49B

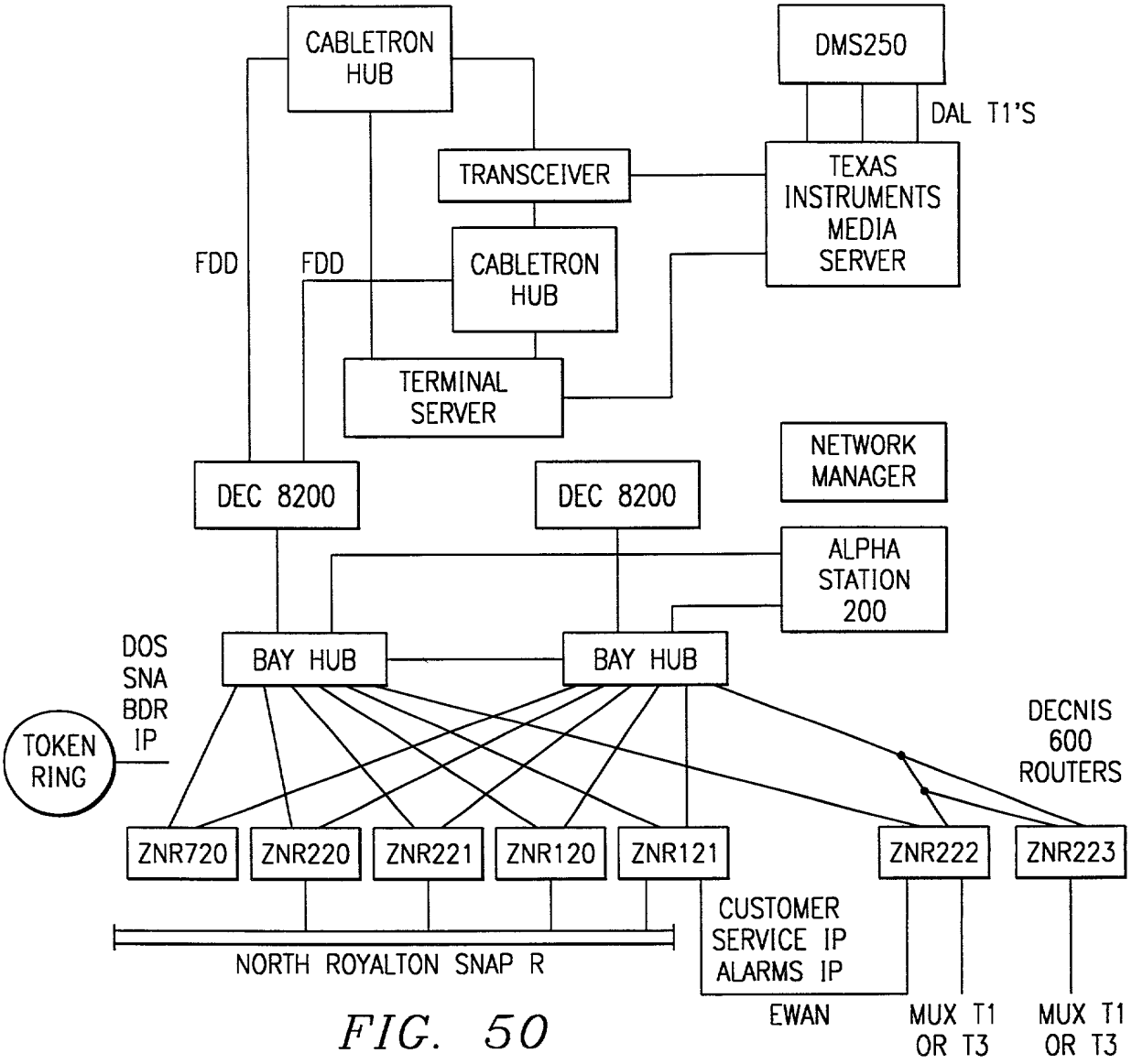

CABLETRON HUB
DMS250
DAL T1'S
TRANSCEIVER
TEXAS INSTRUMENTS MEDIA SERVER
FDD
FDD
CABLETRON HUB
TERMINAL SERVER
NETWORK MANAGER
DEC 8200
DEC 8200
ALPHA STATION 200
DOS SNA BDR IP
BAY HUB
BAY HUB
TOKEN RING
DECNIS 600 ROUTERS
ZNR720
ZNR220
ZNR221
ZNR120
ZNR121
ZNR222
ZNR223
CUSTOMER SERVICE IP ALARMS IP
NORTH ROYALTON SNAP R
EWAN
MUX T1 OR T3
MUX T1 OR T3

FIG. 50

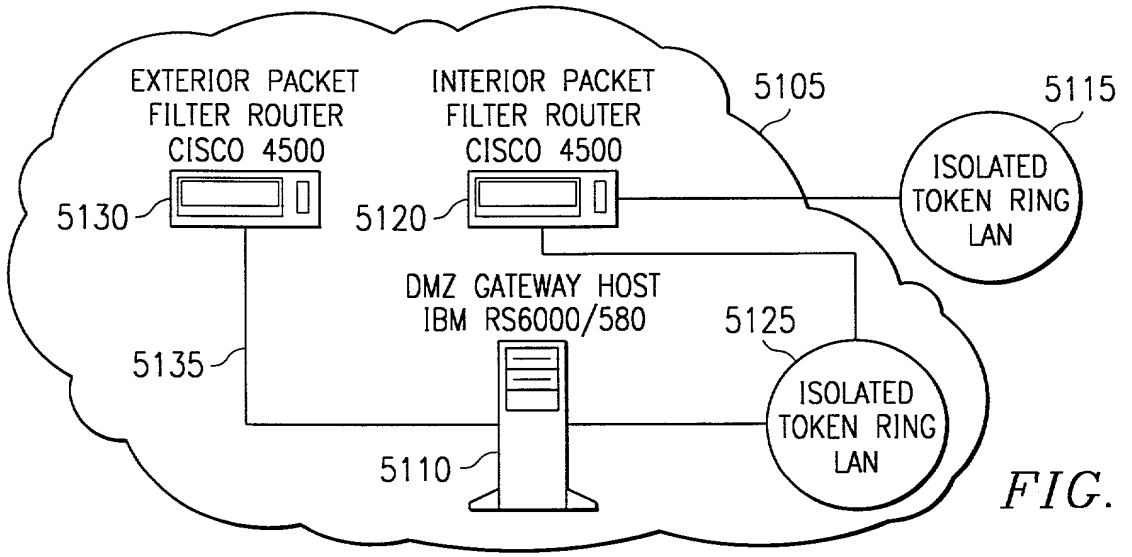

EXTERIOR PACKET FILTER ROUTER CISCO 4500
INTERIOR PACKET FILTER ROUTER CISCO 4500
5105
5115
ISOLATED TOKEN RING LAN
5130
5120
DMZ GATEWAY HOST IBM RS6000/580
5125
5135
ISOLATED TOKEN RING LAN
5110

FIG. 51

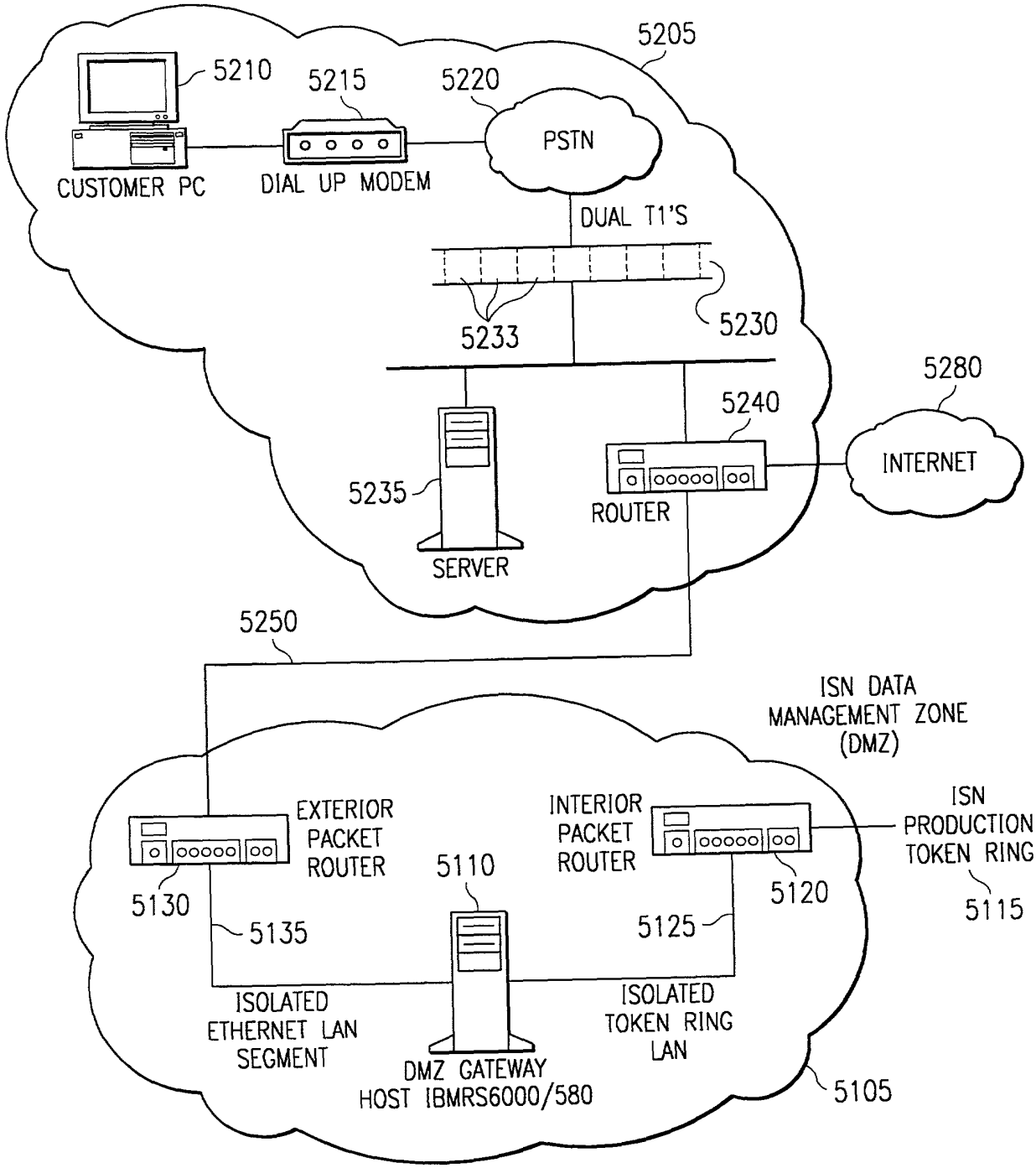

5205
5210
5215
5220
PSTN
CUSTOMER PC
DIAL UP MODEM
DUAL T1'S
5233
5230
5280
5240
INTERNET
5235
ROUTER
SERVER
5250
ISN DATA
MANAGEMENT ZONE
(DMZ)
EXTERIOR
PACKET
ROUTER
INTERIOR
PACKET
ROUTER
ISN
PRODUCTION
TOKEN RING
5110
5130
5120
5115
5135
5125
ISOLATED
ETHERNET LAN
SEGMENT
ISOLATED
TOKEN RING
LAN
DMZ GATEWAY
HOST IBMRS6000/580
5105

FIG. 52A

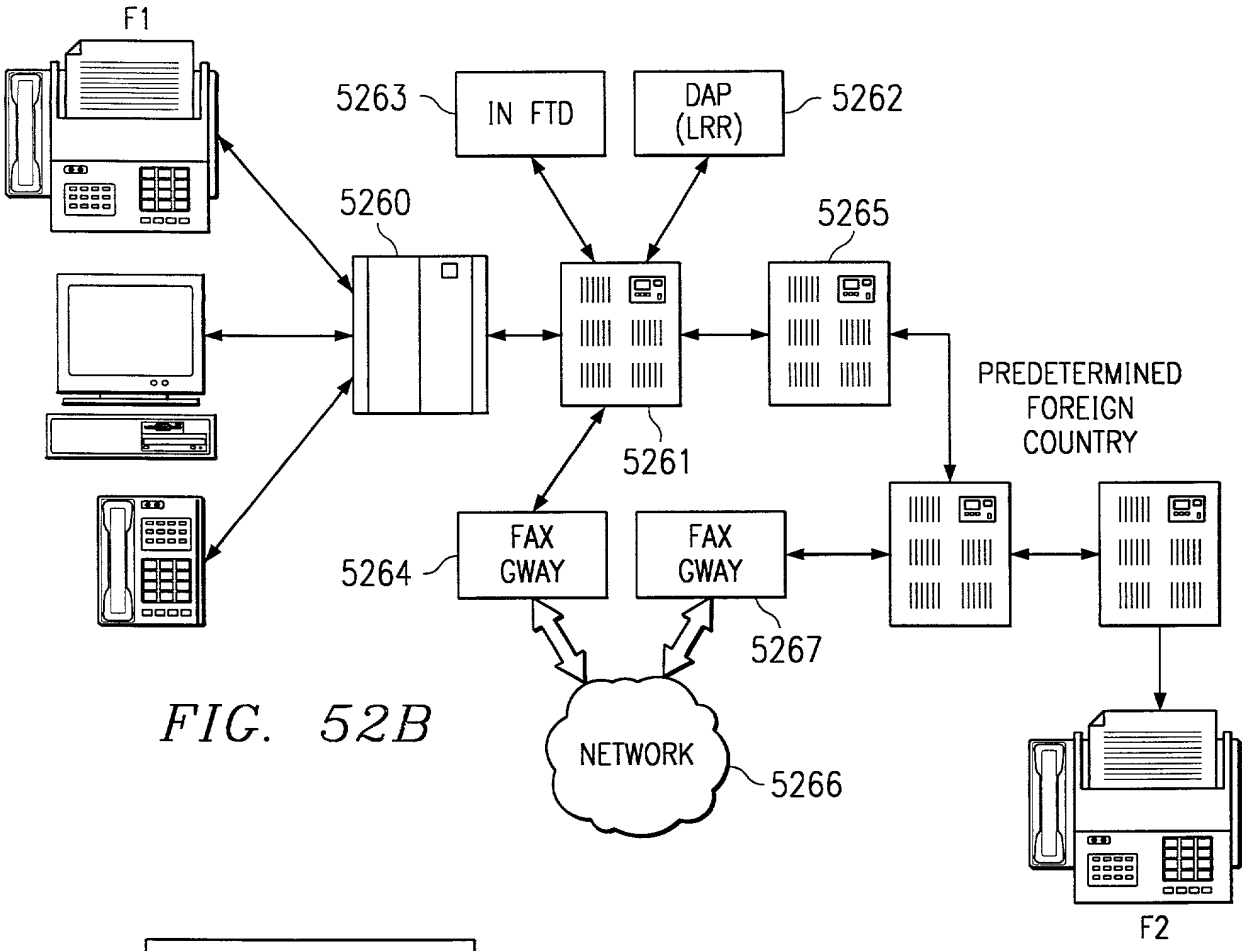


FIG. 52B

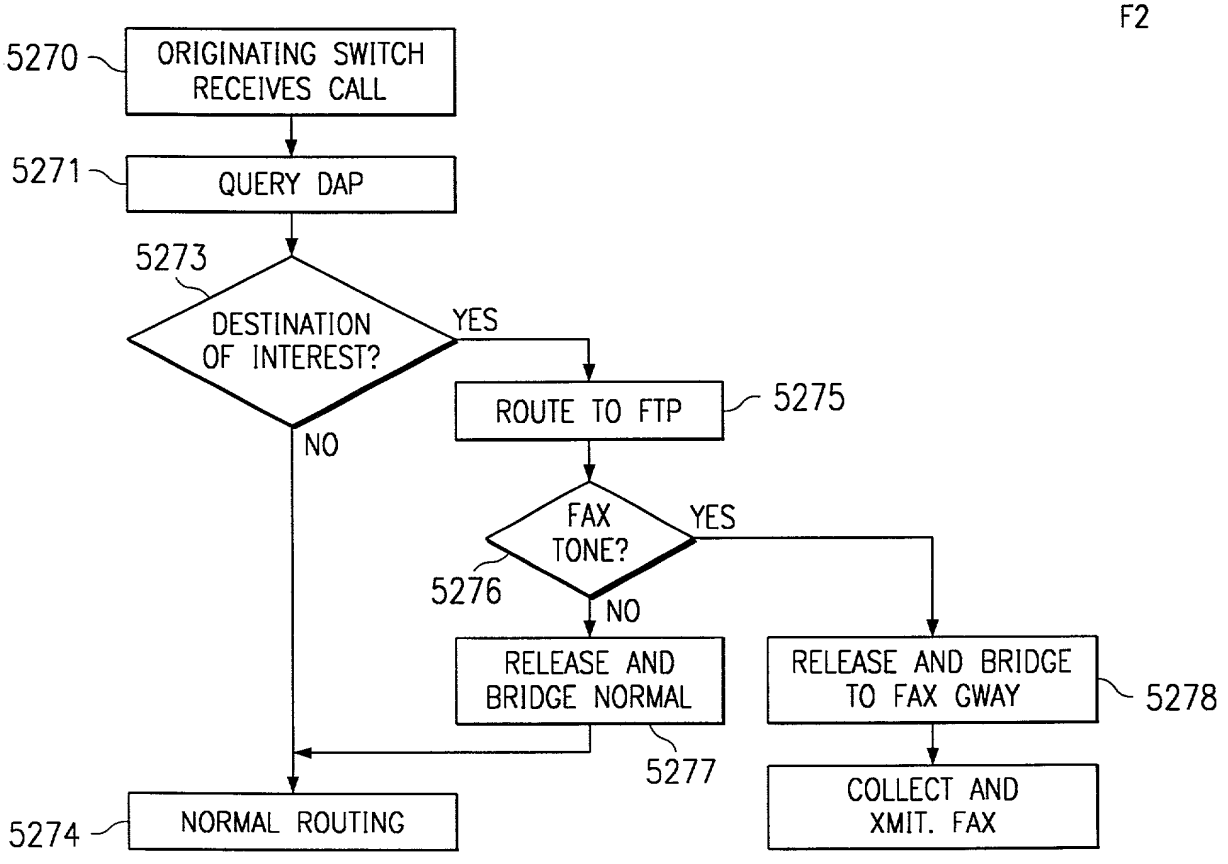


FIG. 52C

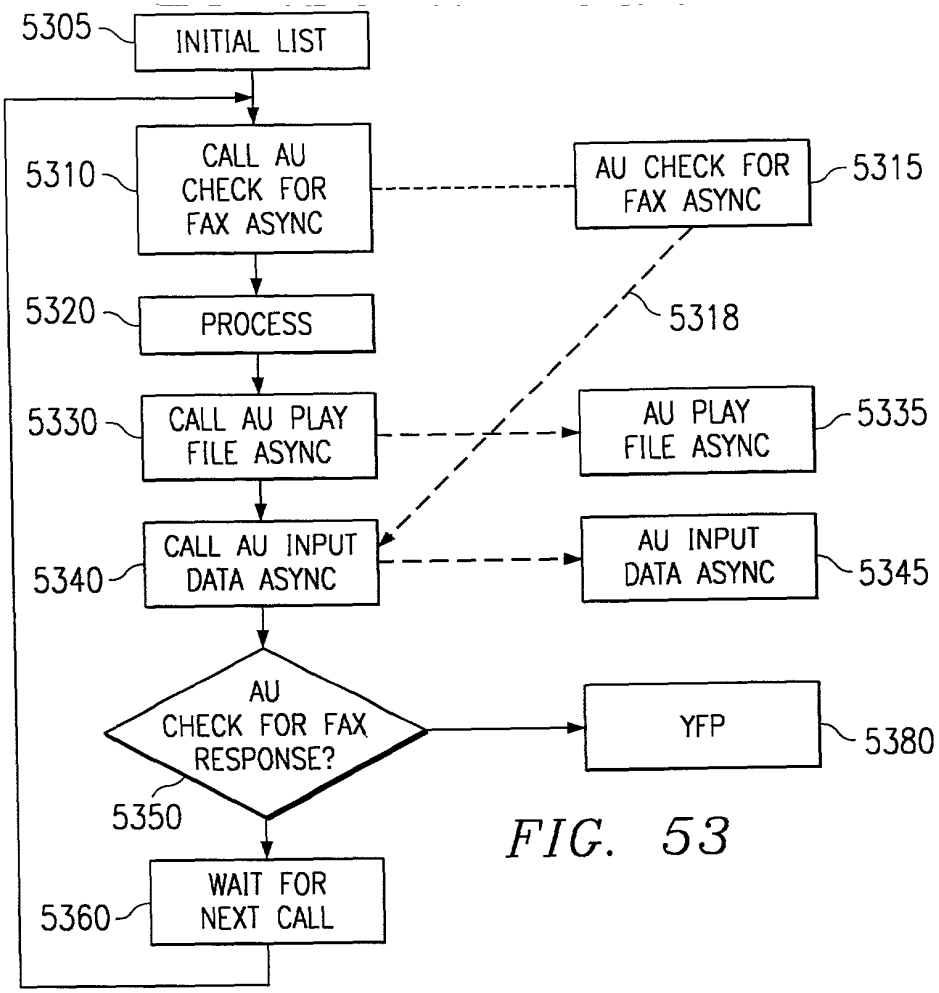

5305
INITIAL LIST
5310
CALL AU CHECK FOR FAX ASYNC
AU CHECK FOR FAX ASYNC
5315
5320
PROCESS
5318
5330
CALL AU PLAY FILE ASYNC
AU PLAY FILE ASYNC
5335
5340
CALL AU INPUT DATA ASYNC
AU INPUT DATA ASYNC
5345
AU CHECK FOR FAX RESPONSE?
5350
YFP
5380
5360
WAIT FOR NEXT CALL

FIG. 53

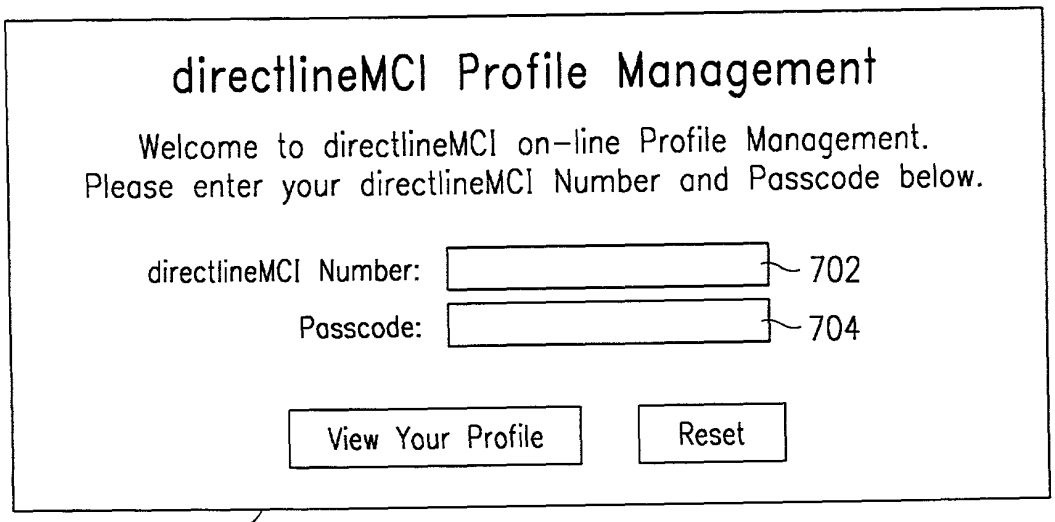

directlineMCI Profile Management
Welcome to directlineMCI on-line Profile Management.
Please enter your directlineMCI Number and Passcode below.
directlineMCI Number:
702
Passcode:
704
View Your Profile
Reset
700

FIG. 57

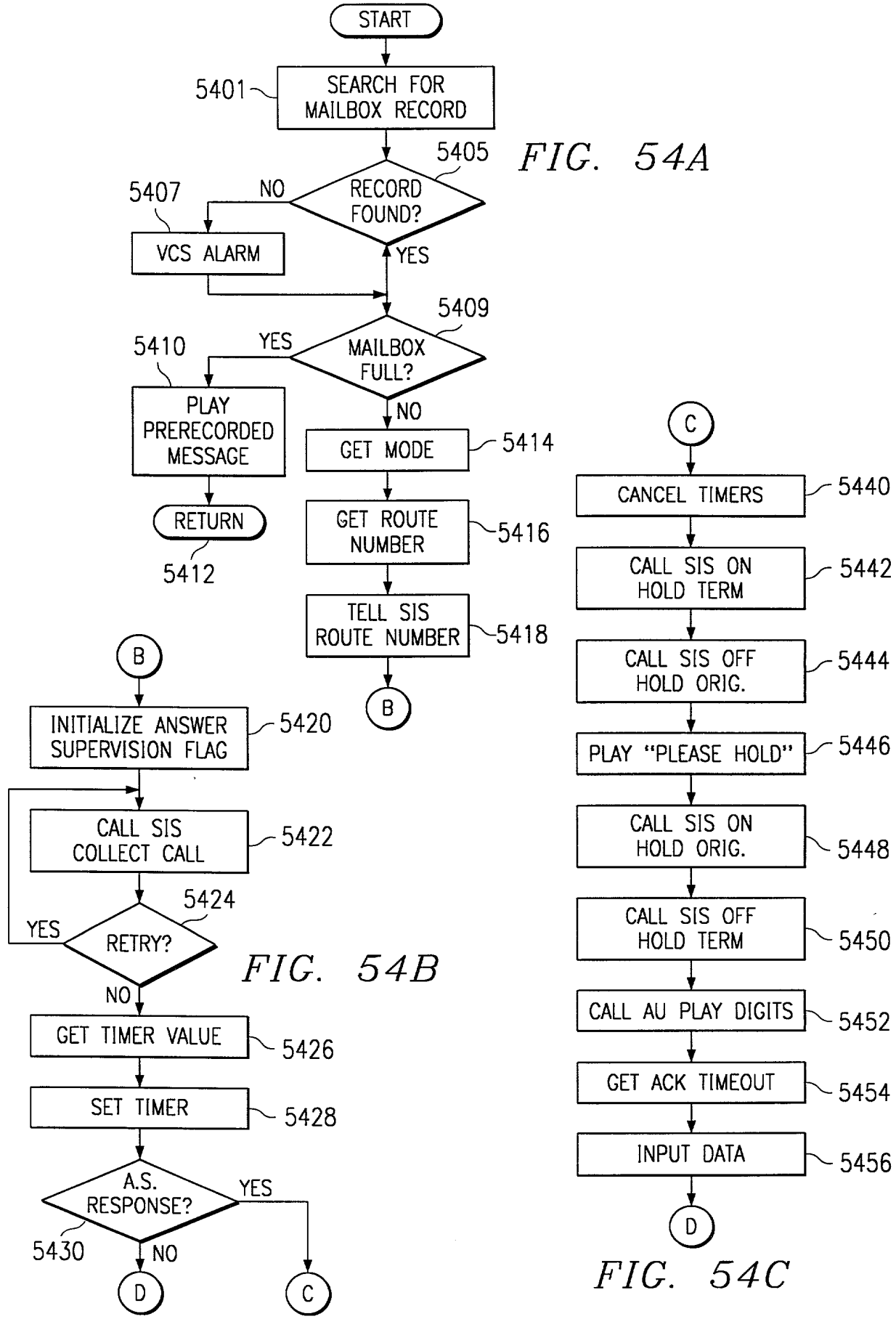


FIG. 54A

FIG. 54B

FIG. 54C

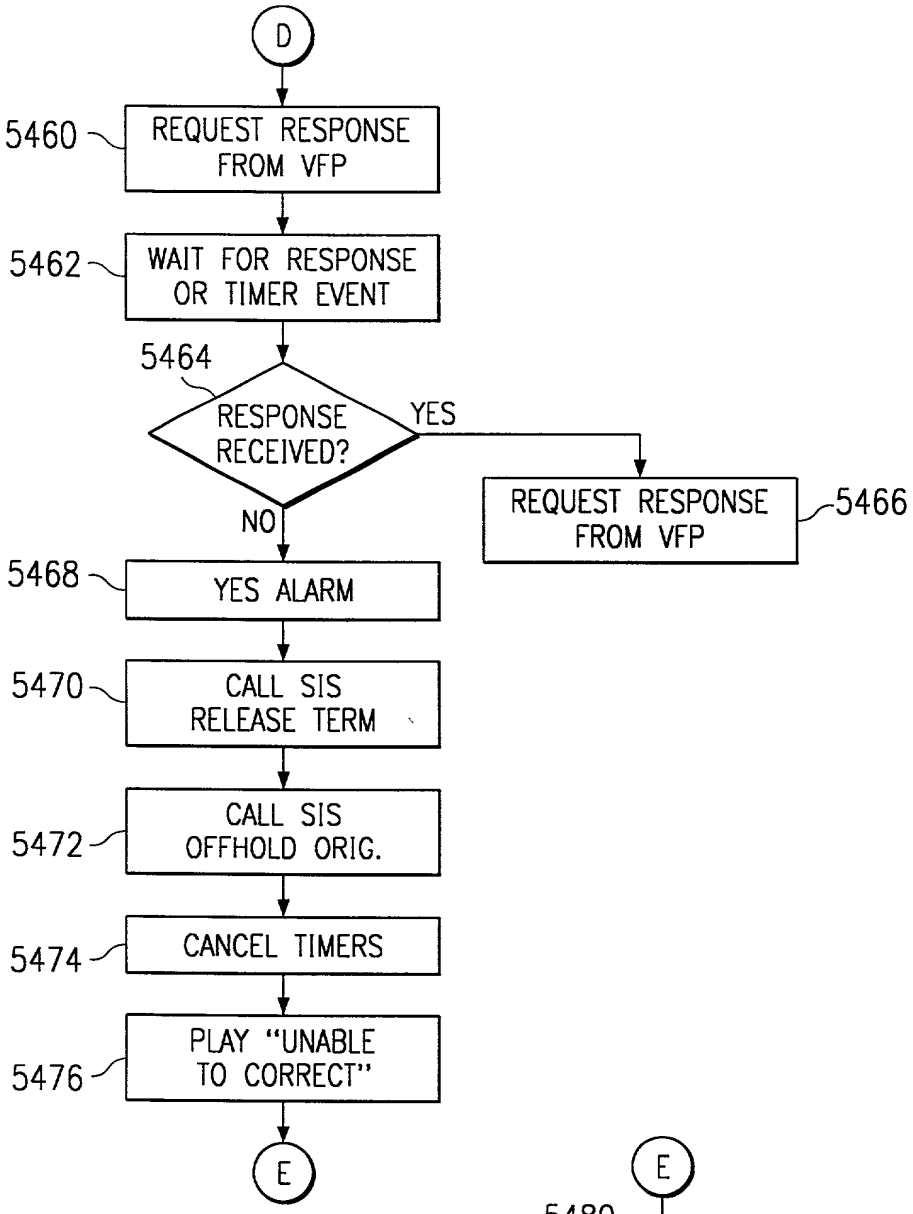


FIG. 54D

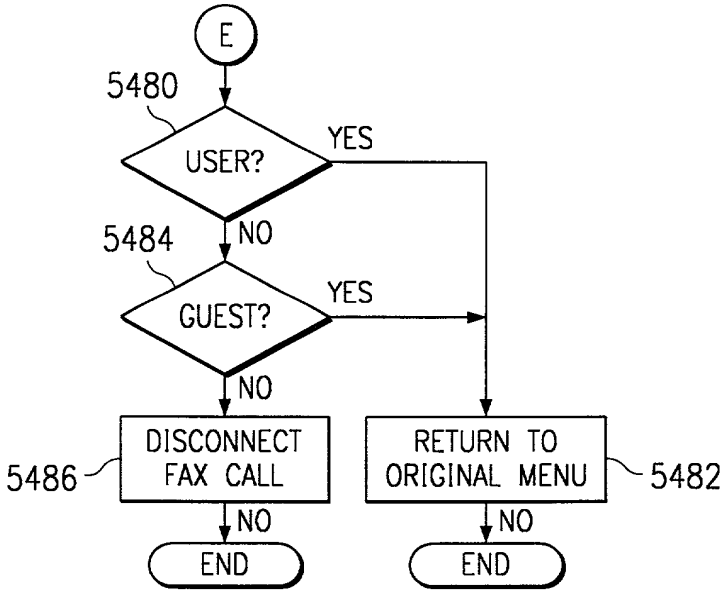


FIG. 54E

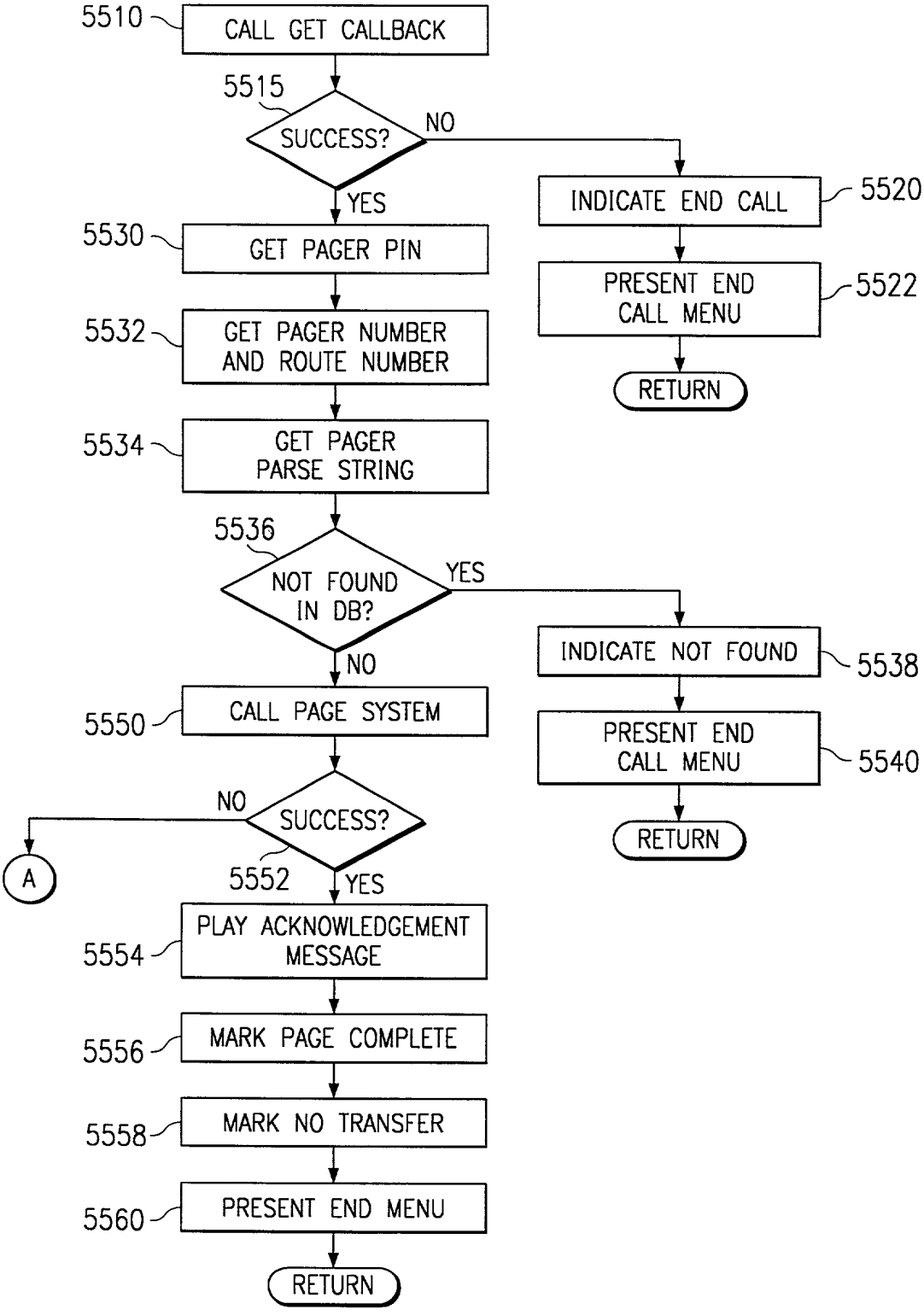

5510
CALL GET CALLBACK
5515
SUCCESS?
NO
YES
INDICATE END CALL
5520
PRESENT END CALL MENU
5522
RETURN
5530
GET PAGER PIN
5532
GET PAGER NUMBER AND ROUTE NUMBER
5534
GET PAGER PARSE STRING
5536
NOT FOUND IN DB?
YES
NO
INDICATE NOT FOUND
5538
PRESENT END CALL MENU
5540
RETURN
5550
CALL PAGE SYSTEM
NO
SUCCESS?
A
5552
YES
5554
PLAY ACKNOWLEDGEMENT MESSAGE
5556
MARK PAGE COMPLETE
5558
MARK NO TRANSFER
5560
PRESENT END MENU
RETURN

FIG. 55A

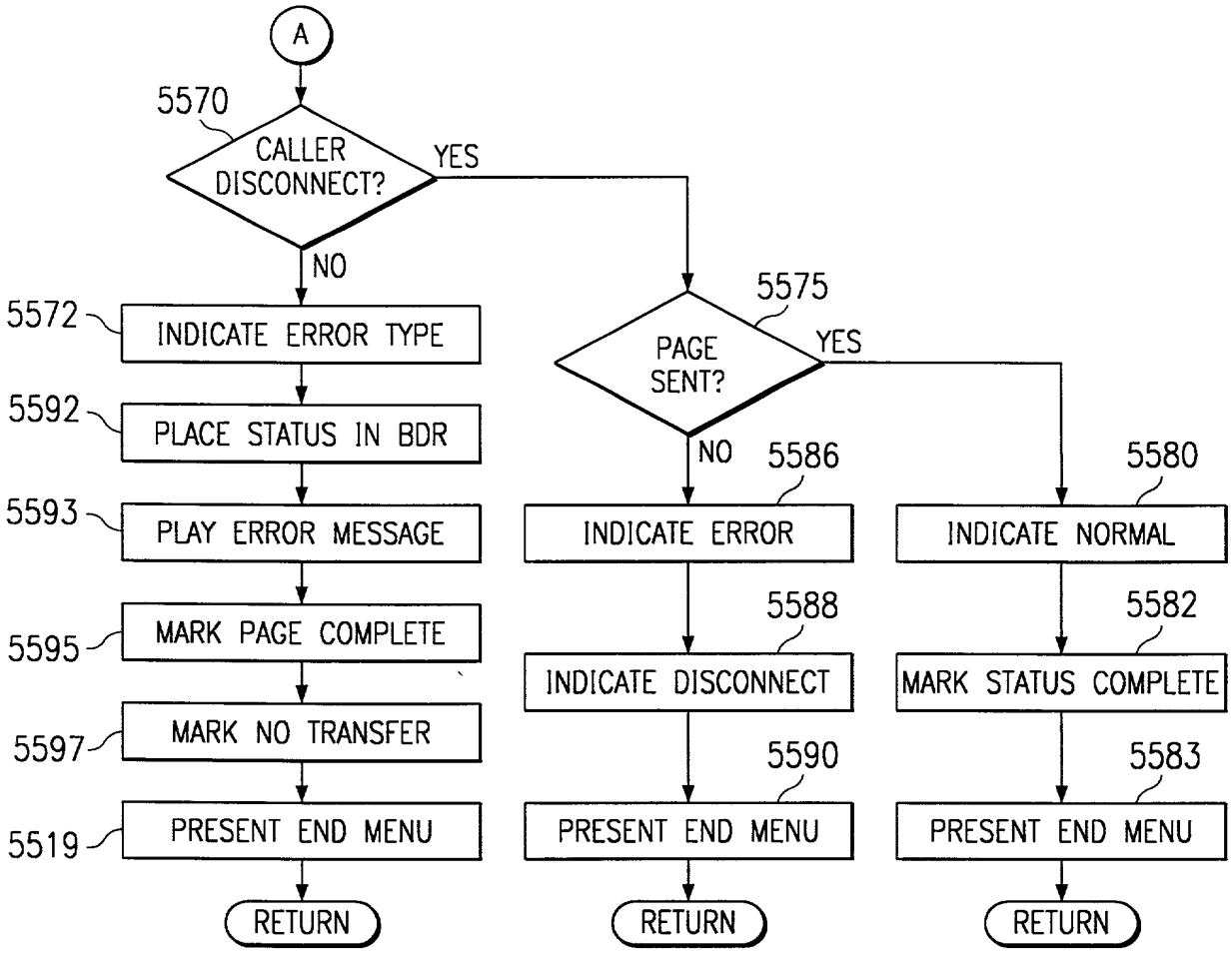


FIG. 55B

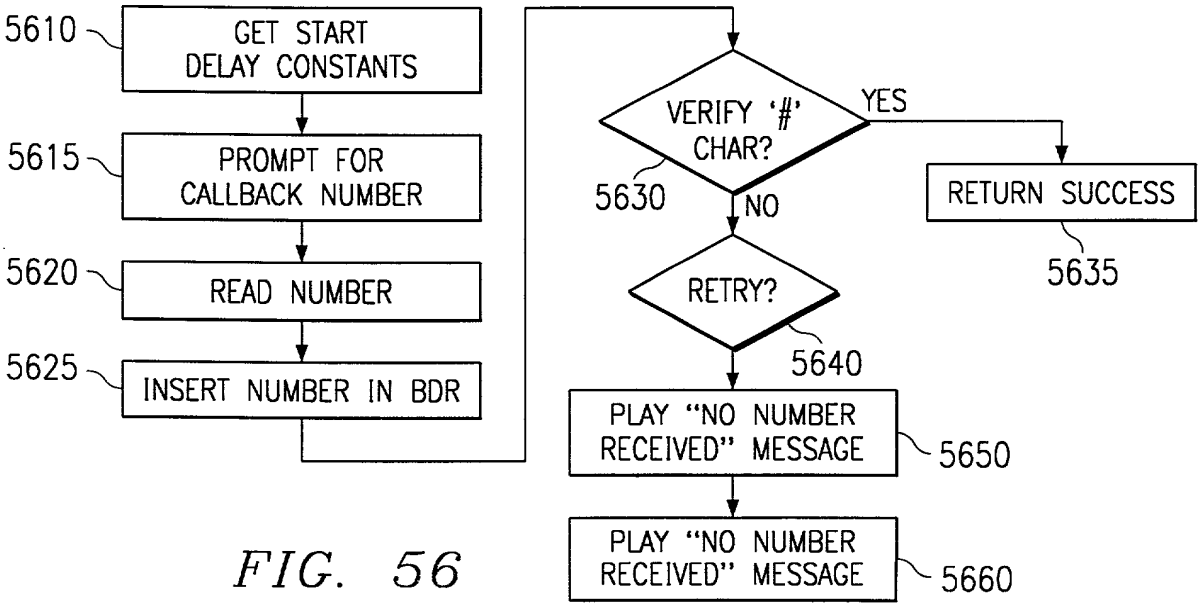


FIG. 56

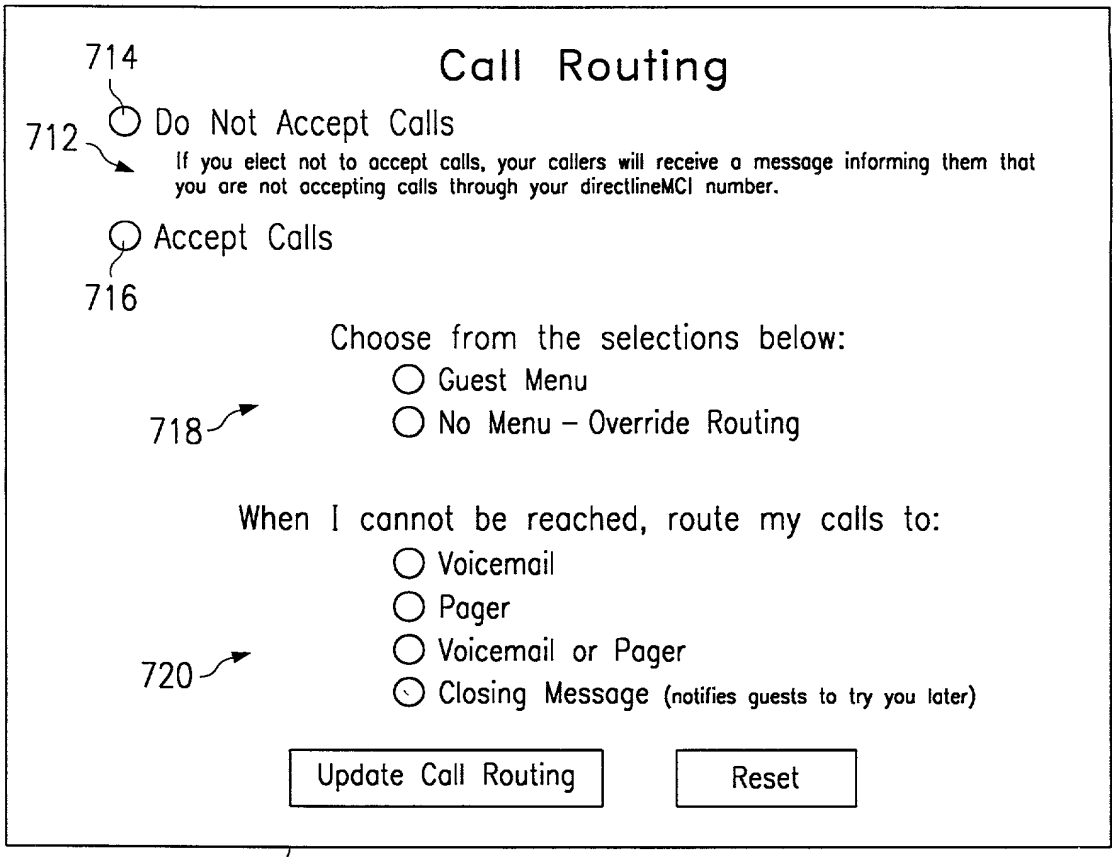

Call Routing
714
Do Not Accept Calls
712
If you elect not to accept calls, your callers will receive a message informing them that you are not accepting calls through your directlineMCI number.
Accept Calls
716
Choose from the selections below:
Guest Menu
718
No Menu – Override Routing
When I cannot be reached, route my calls to:
Voicemail
Pager
Voicemail or Pager
720
Closing Message (notifies guests to try you later)
Update Call Routing
Reset
710

FIG. 58

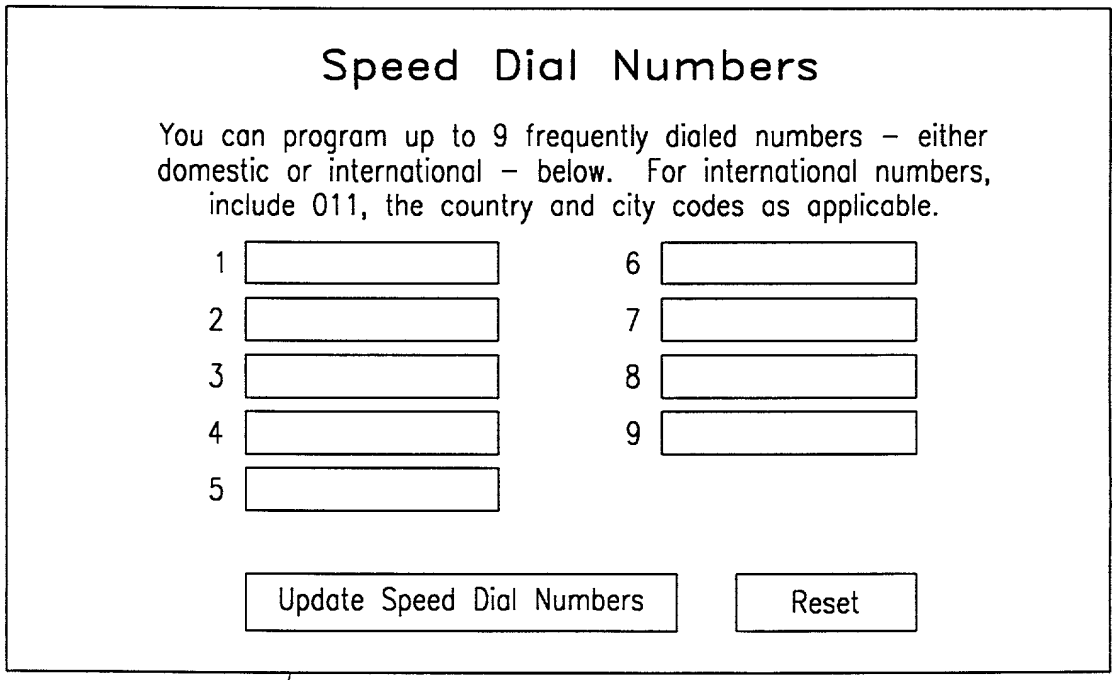

Speed Dial Numbers
You can program up to 9 frequently dialed numbers – either domestic or international – below. For international numbers, include 011, the country and city codes as applicable.
1
2
3
4
5
6
7
8
9
Update Speed Dial Numbers
Reset
744

FIG. 61

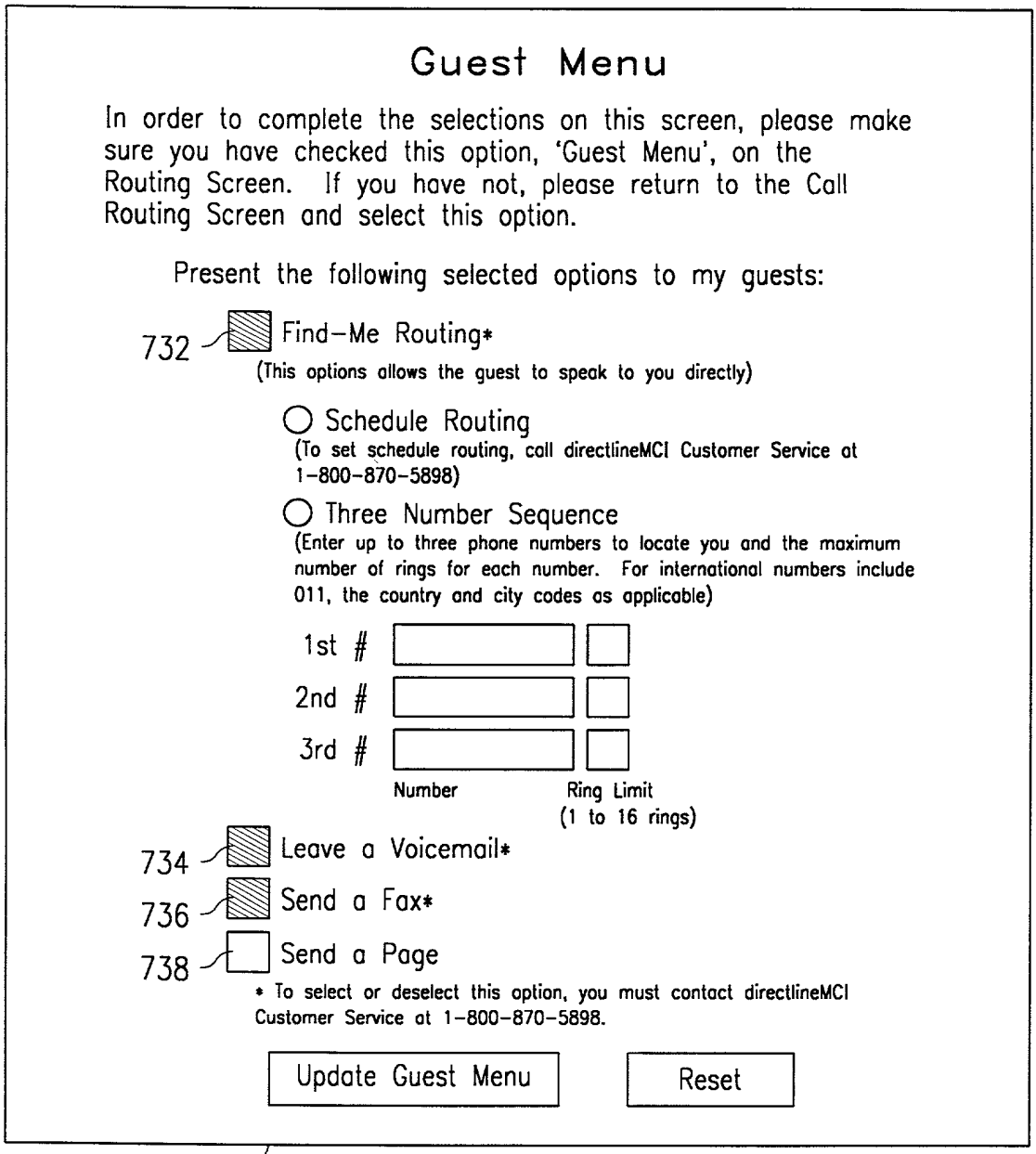
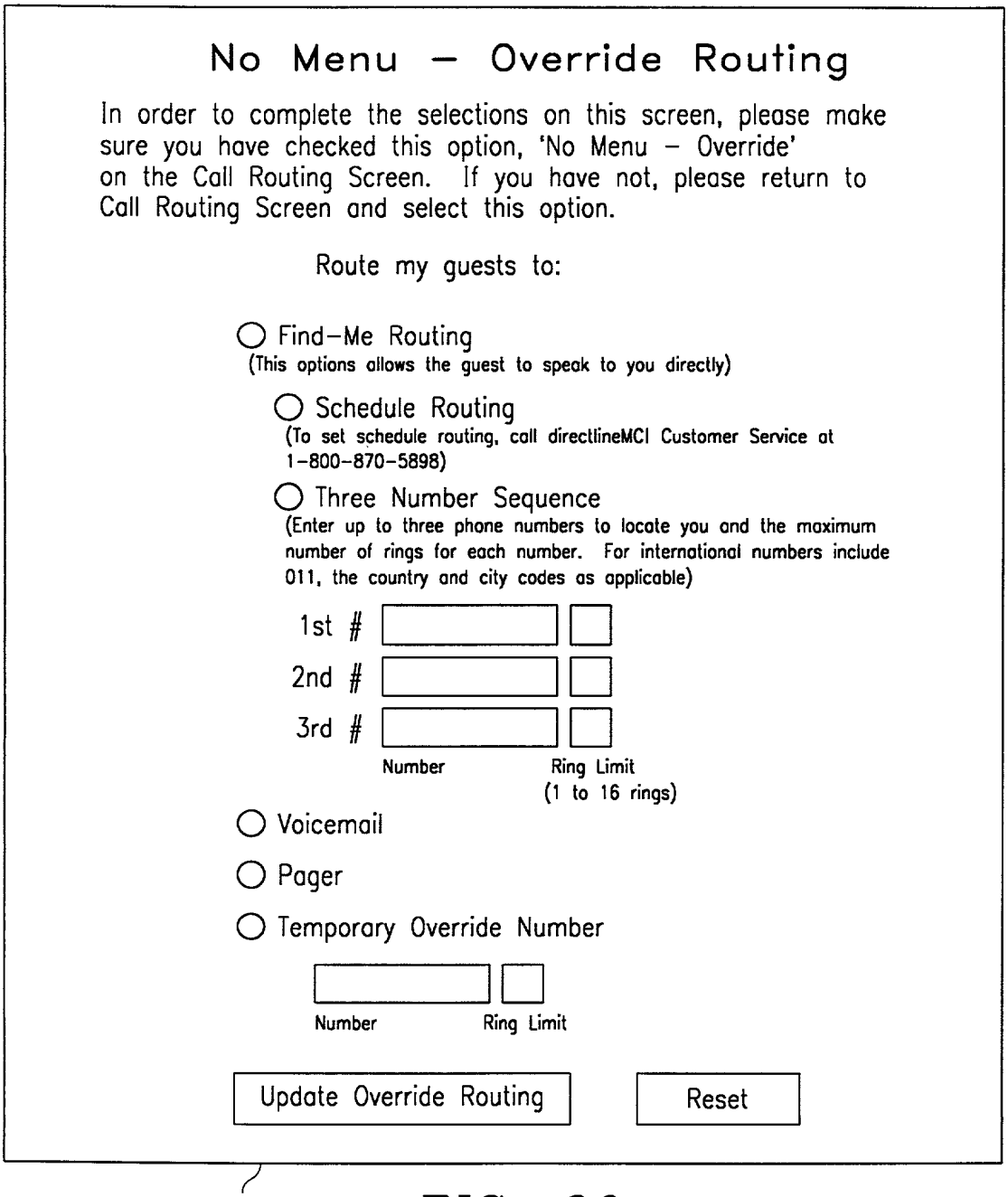

Guest Menu
In order to complete the selections on this screen, please make sure you have checked this option, 'Guest Menu', on the Routing Screen. If you have not, please return to the Call Routing Screen and select this option.
Present the following selected options to my guests:
732
Find-Me Routing*
(This options allows the guest to speak to you directly)
Schedule Routing
(To set schedule routing, call directlineMCI Customer Service at 1-800-870-5898)
Three Number Sequence
(Enter up to three phone numbers to locate you and the maximum number of rings for each number. For international numbers include 011, the country and city codes as applicable)
1st #
2nd #
3rd #
Number
Ring Limit
(1 to 16 rings)
734
Leave a Voicemail*
736
Send a Fax*
738
Send a Page
* To select or deselect this option, you must contact directlineMCI Customer Service at 1-800-870-5898.
Update Guest Menu
Reset
730

FIG. 59


No Menu – Override Routing
In order to complete the selections on this screen, please make sure you have checked this option, 'No Menu – Override' on the Call Routing Screen. If you have not, please return to Call Routing Screen and select this option.
Route my guests to:
Find–Me Routing
(This options allows the guest to speak to you directly)
Schedule Routing
(To set schedule routing, call directlineMCI Customer Service at 1–800–870–5898)
Three Number Sequence
(Enter up to three phone numbers to locate you and the maximum number of rings for each number. For international numbers include 011, the country and city codes as applicable)
1st #
2nd #
3rd #
Number
Ring Limit
(1 to 16 rings)
Voicemail
Pager
Temporary Override Number
Number
Ring Limit
Update Override Routing
Reset

740

FIG. 60

FIG. 62

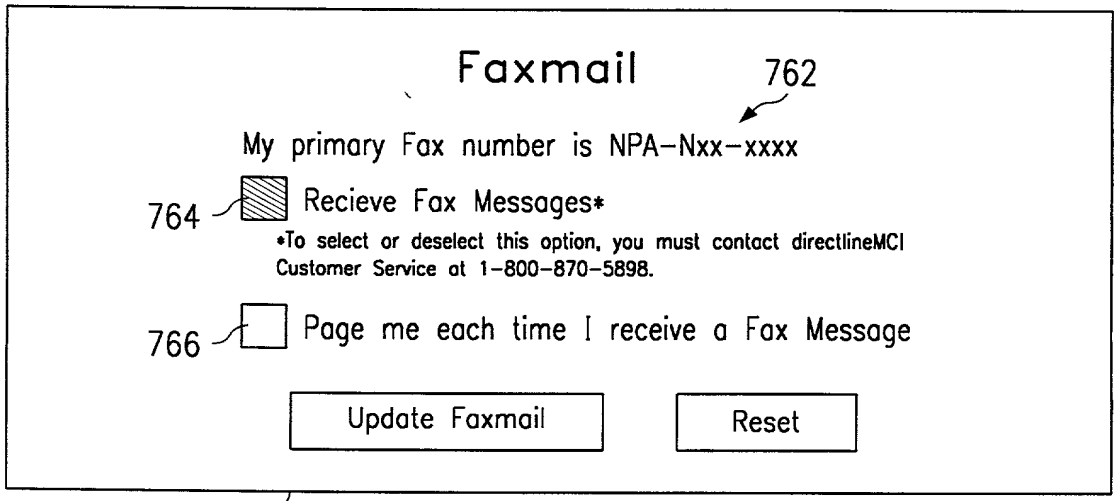


FIG. 63

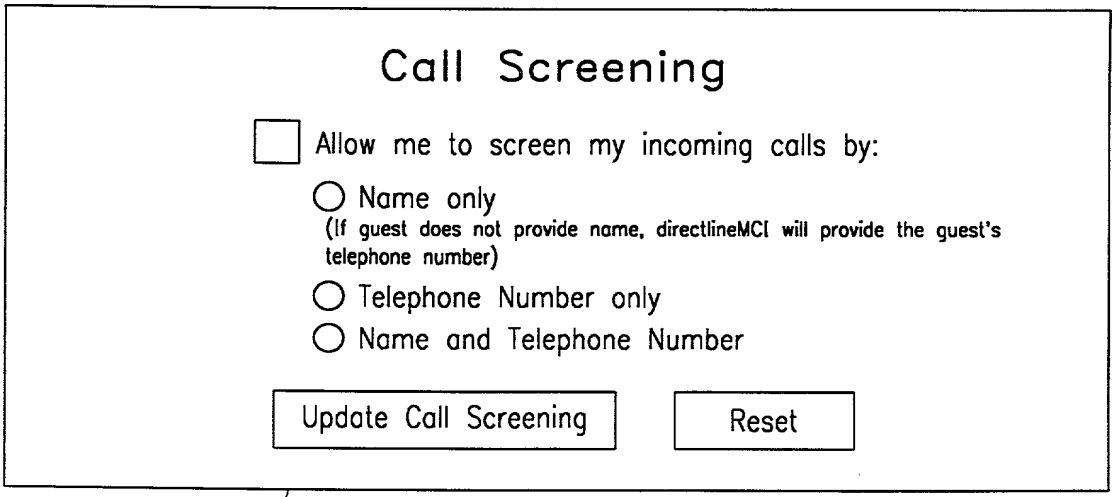
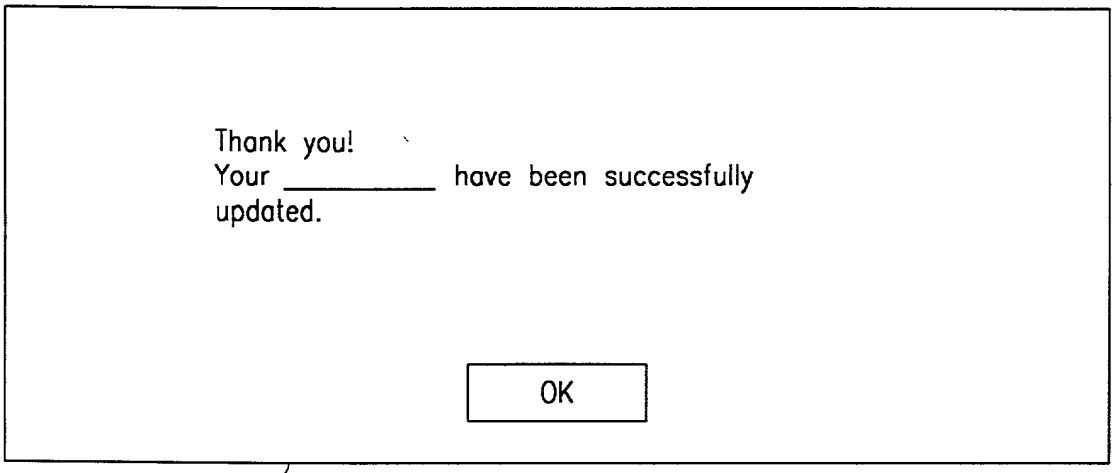
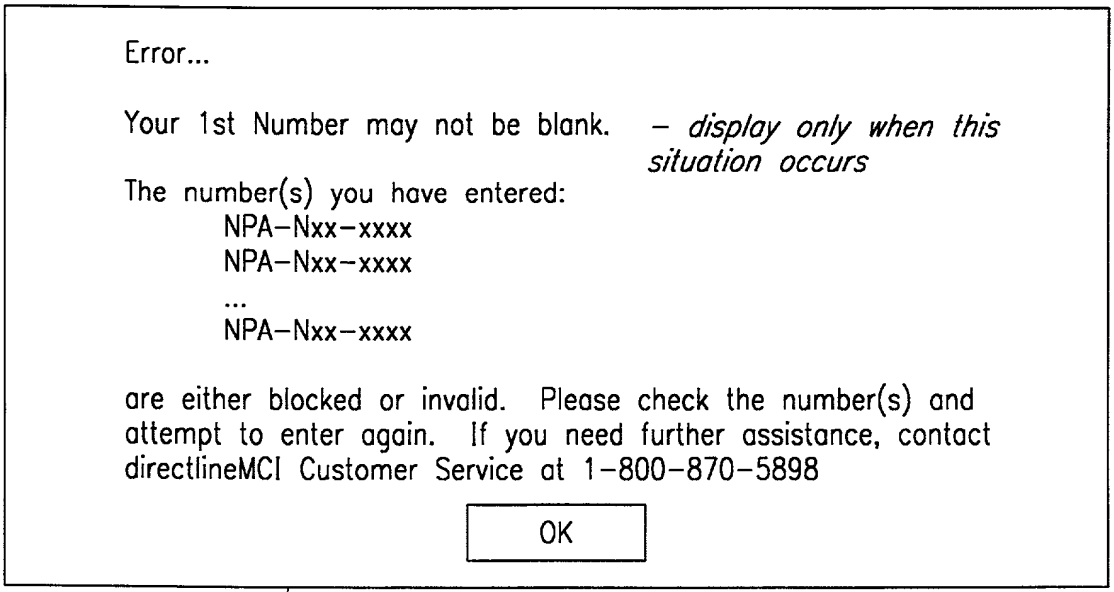


FIG. 64

780 *FIG. 65*



782 *FIG. 66*



784 *FIG. 67*

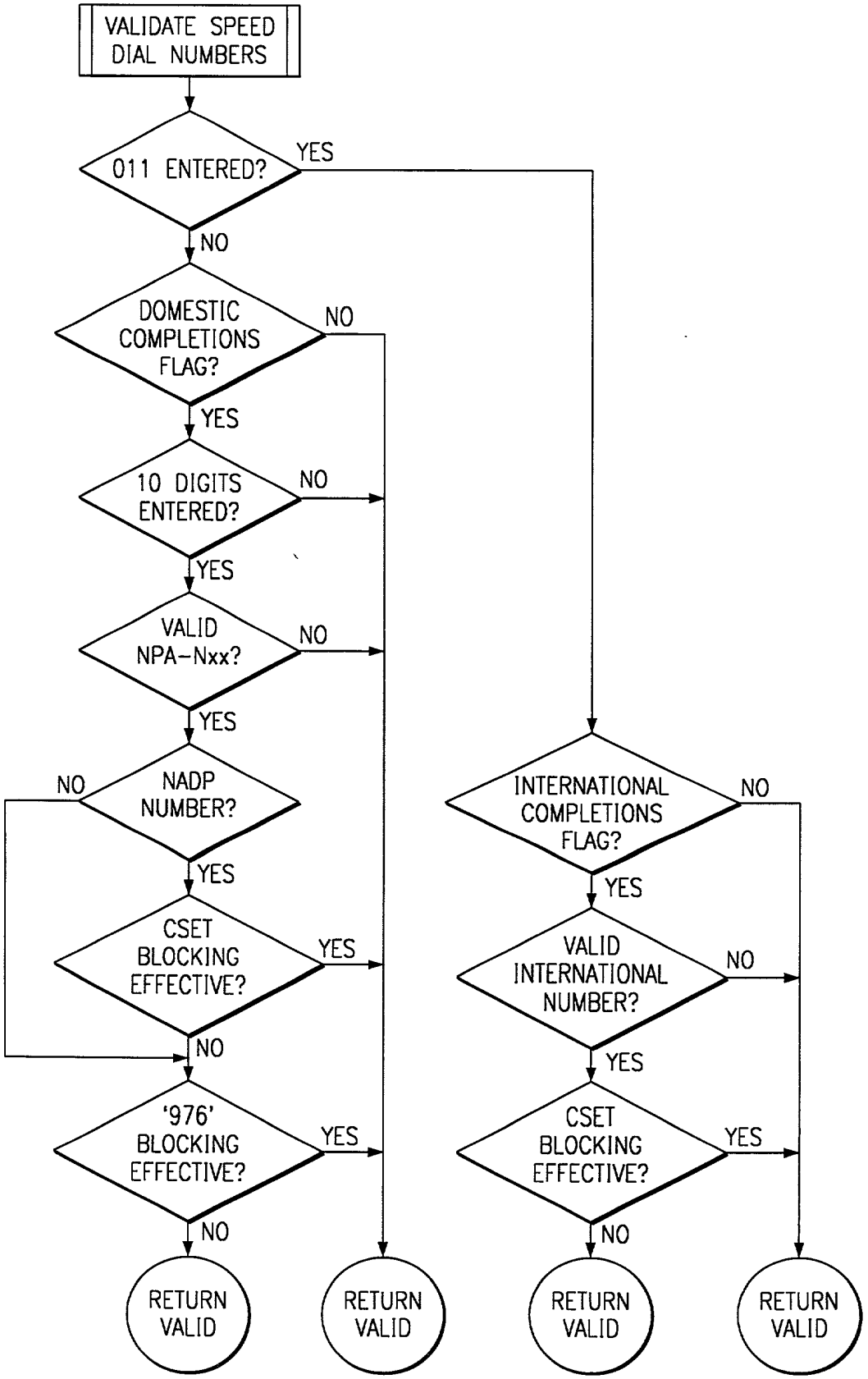

VALIDATE SPEED DIAL NUMBERS
011 ENTERED?
YES
NO
DOMESTIC COMPLETIONS FLAG?
NO
YES
10 DIGITS ENTERED?
NO
YES
VALID NPA-Nxx?
NO
YES
NADP NUMBER?
NO
YES
CSET BLOCKING EFFECTIVE?
YES
NO
'976' BLOCKING EFFECTIVE?
YES
NO
RETURN VALID
RETURN VALID
INTERNATIONAL COMPLETIONS FLAG?
NO
YES
VALID INTERNATIONAL NUMBER?
NO
YES
CSET BLOCKING EFFECTIVE?
YES
NO
RETURN VALID
RETURN VALID

FIG. 68

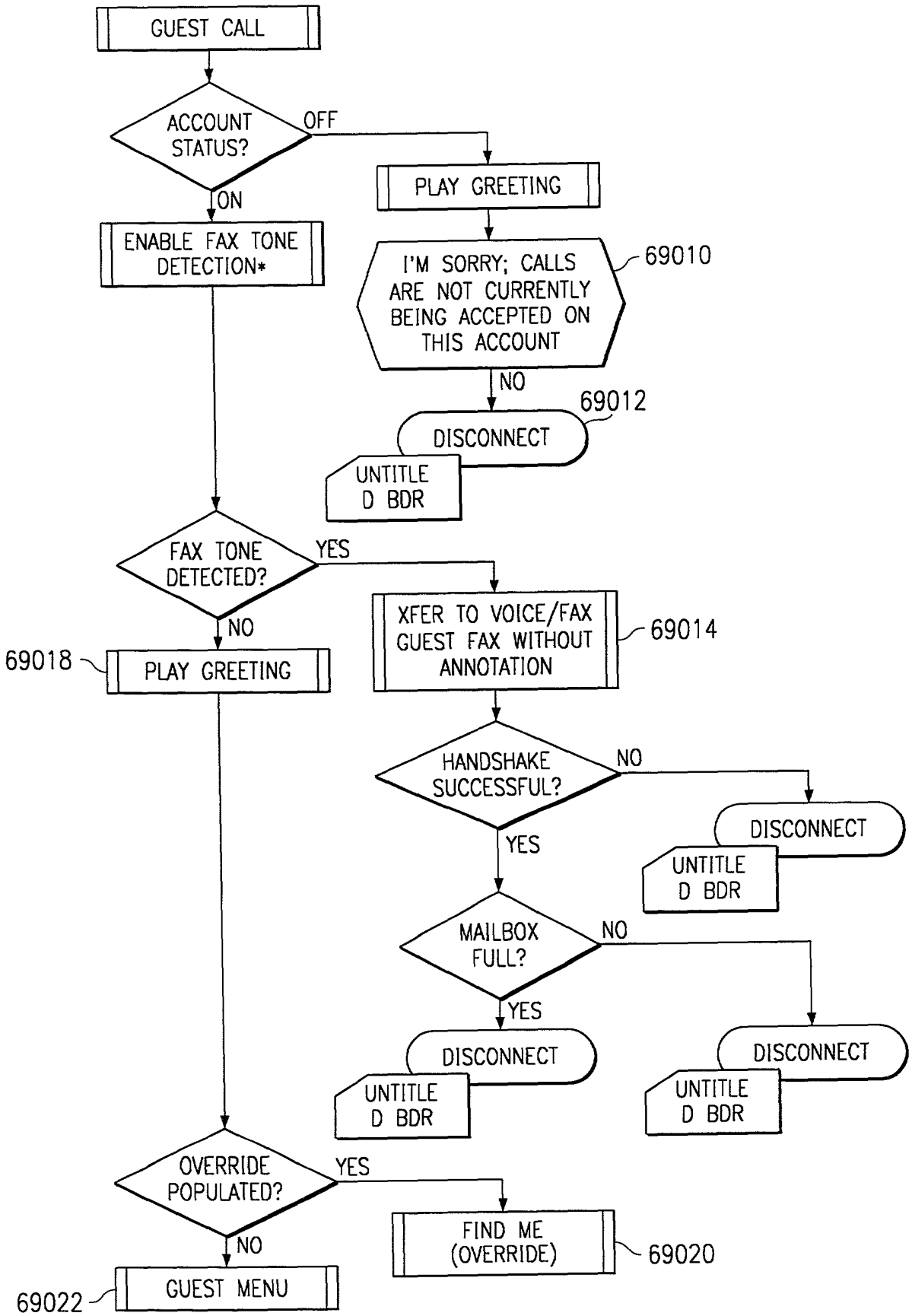

GUEST CALL
ACCOUNT STATUS?
OFF
ON
PLAY GREETING
ENABLE FAX TONE DETECTION*
I'M SORRY; CALLS ARE NOT CURRENTLY BEING ACCEPTED ON THIS ACCOUNT
69010
NO
69012
DISCONNECT
UNTITLED BDR
FAX TONE DETECTED?
YES
NO
XFER TO VOICE/FAX GUEST FAX WITHOUT ANNOTATION
69014
69018
PLAY GREETING
HANDSHAKE SUCCESSFUL?
NO
DISCONNECT
UNTITLED BDR
YES
MAILBOX FULL?
NO
YES
DISCONNECT
UNTITLED BDR
DISCONNECT
UNTITLED BDR
OVERRIDE POPULATED?
YES
NO
FIND ME (OVERRIDE)
69020
69022
GUEST MENU

FIG. 69A

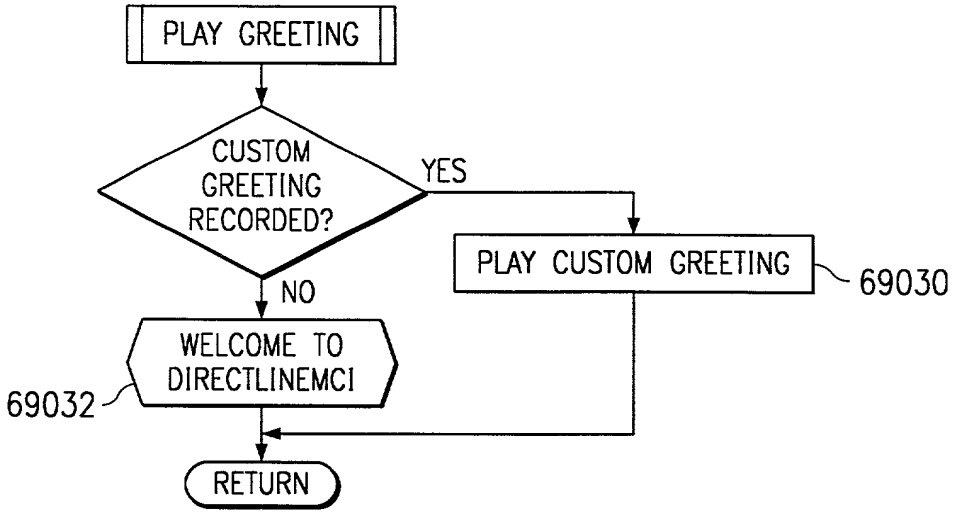


FIG. 69B

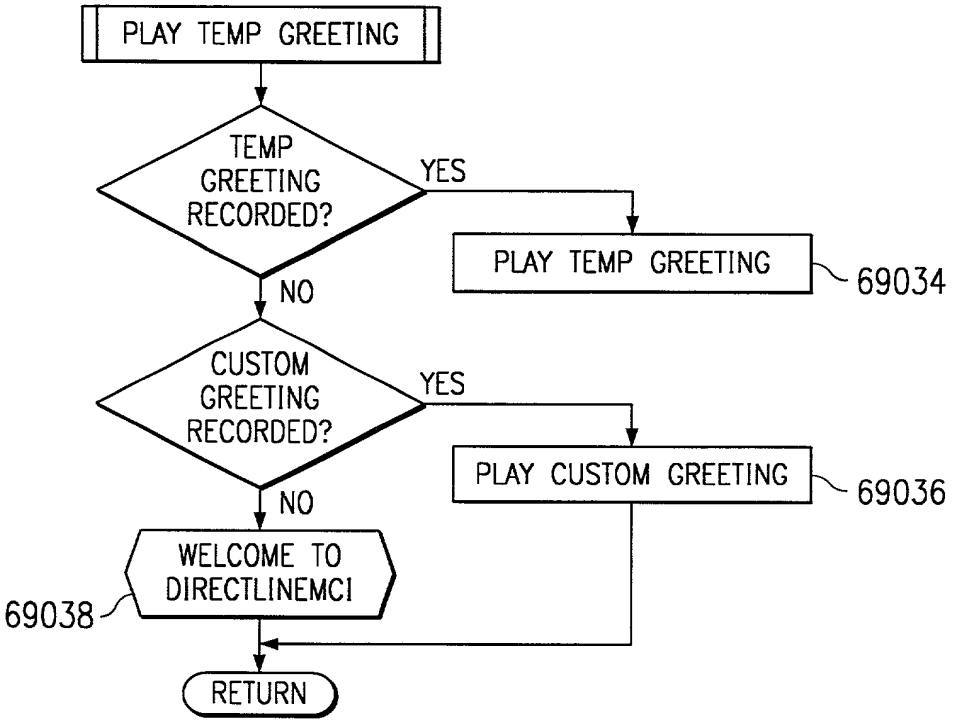


FIG. 69C

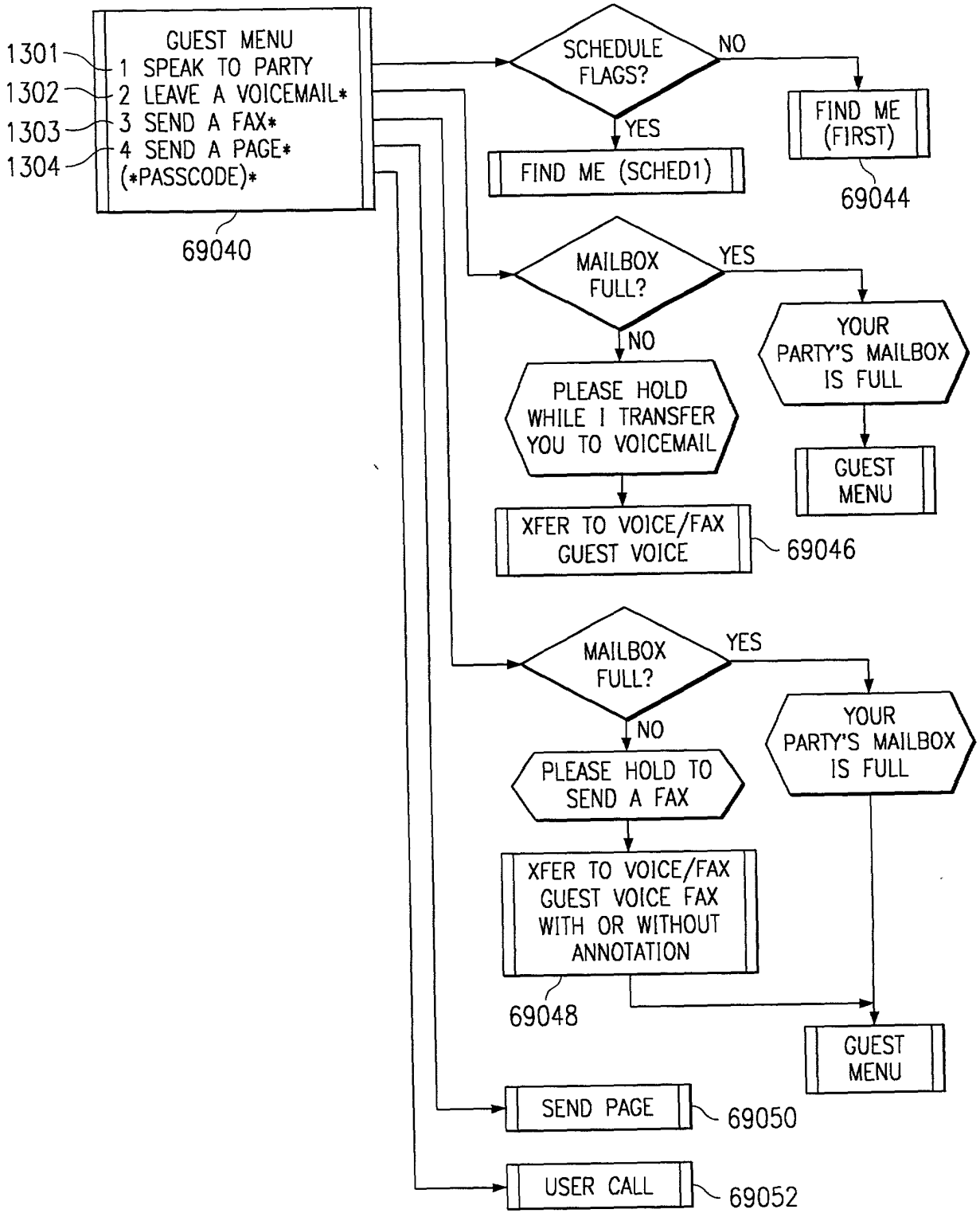

GUEST MENU
1 SPEAK TO PARTY
2 LEAVE A VOICEMAIL*
3 SEND A FAX*
4 SEND A PAGE*
(*PASSCODE)*
1301
1302
1303
1304
69040
SCHEDULE FLAGS?
NO
YES
FIND ME (SCHED1)
FIND ME (FIRST)
69044
MAILBOX FULL?
YES
NO
YOUR PARTY'S MAILBOX IS FULL
GUEST MENU
PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
XFER TO VOICE/FAX GUEST VOICE
69046
MAILBOX FULL?
YES
NO
YOUR PARTY'S MAILBOX IS FULL
PLEASE HOLD TO SEND A FAX
XFER TO VOICE/FAX GUEST VOICE FAX WITH OR WITHOUT ANNOTATION
69048
GUEST MENU
SEND PAGE
69050
USER CALL
69052

FIG. 69D

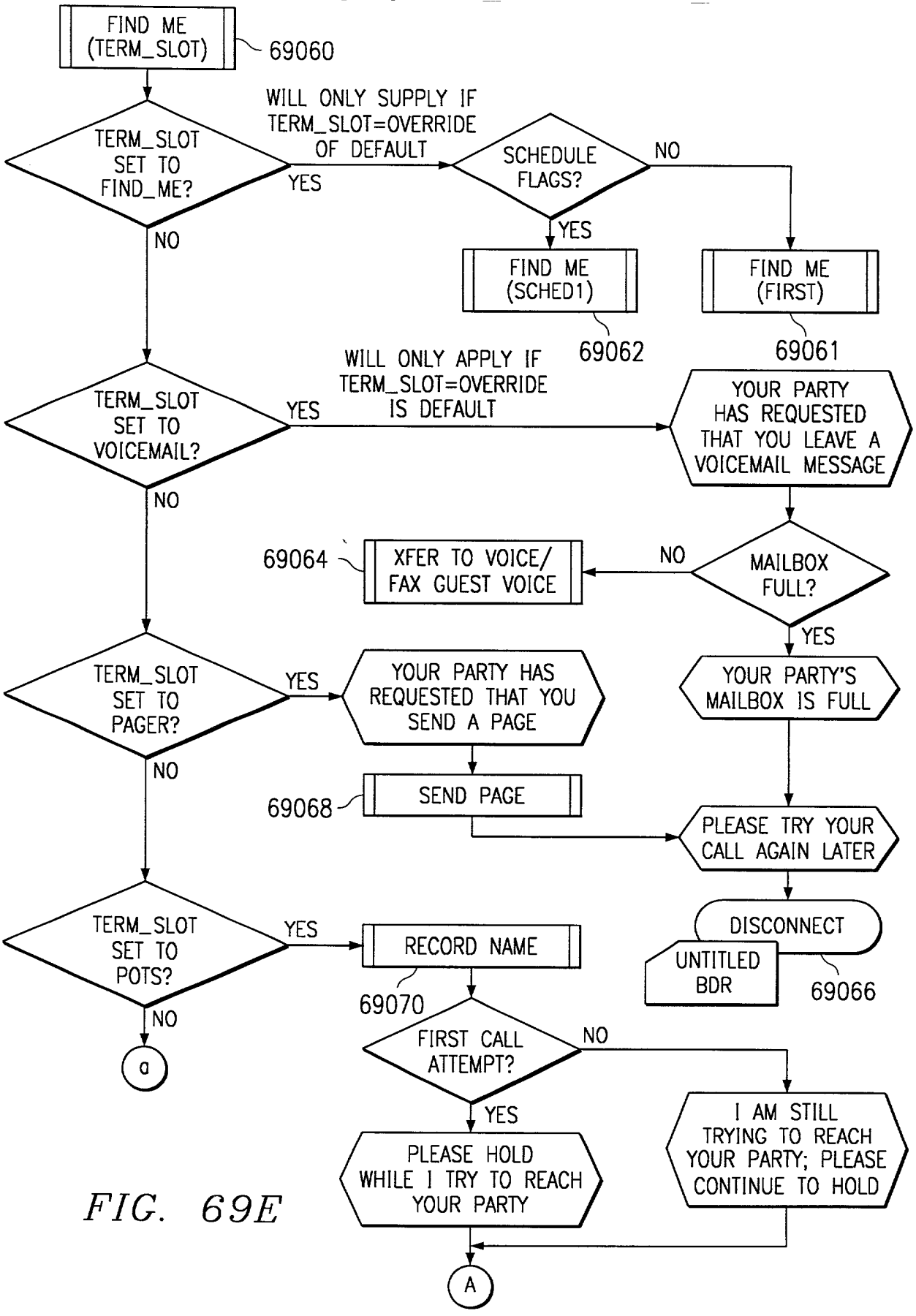

FIND ME (TERM_SLOT)
69060
TERM_SLOT SET TO FIND_ME?
YES
WILL ONLY SUPPLY IF TERM_SLOT=OVERRIDE OF DEFAULT
SCHEDULE FLAGS?
NO
YES
FIND ME (SCHED1)
69062
FIND ME (FIRST)
69061
NO
TERM_SLOT SET TO VOICEMAIL?
YES
WILL ONLY APPLY IF TERM_SLOT=OVERRIDE IS DEFAULT
YOUR PARTY HAS REQUESTED THAT YOU LEAVE A VOICEMAIL MESSAGE
NO
69064
XFER TO VOICE/ FAX GUEST VOICE
NO
MAILBOX FULL?
YES
TERM_SLOT SET TO PAGER?
YES
YOUR PARTY HAS REQUESTED THAT YOU SEND A PAGE
YOUR PARTY'S MAILBOX IS FULL
NO
69068
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER
TERM_SLOT SET TO POTS?
YES
RECORD NAME
DISCONNECT
UNTITLED BDR
69066
69070
NO
a
FIRST CALL ATTEMPT?
NO
YES
PLEASE HOLD WHILE I TRY TO REACH YOUR PARTY
I AM STILL TRYING TO REACH YOUR PARTY; PLEASE CONTINUE TO HOLD
A

FIG. 69E

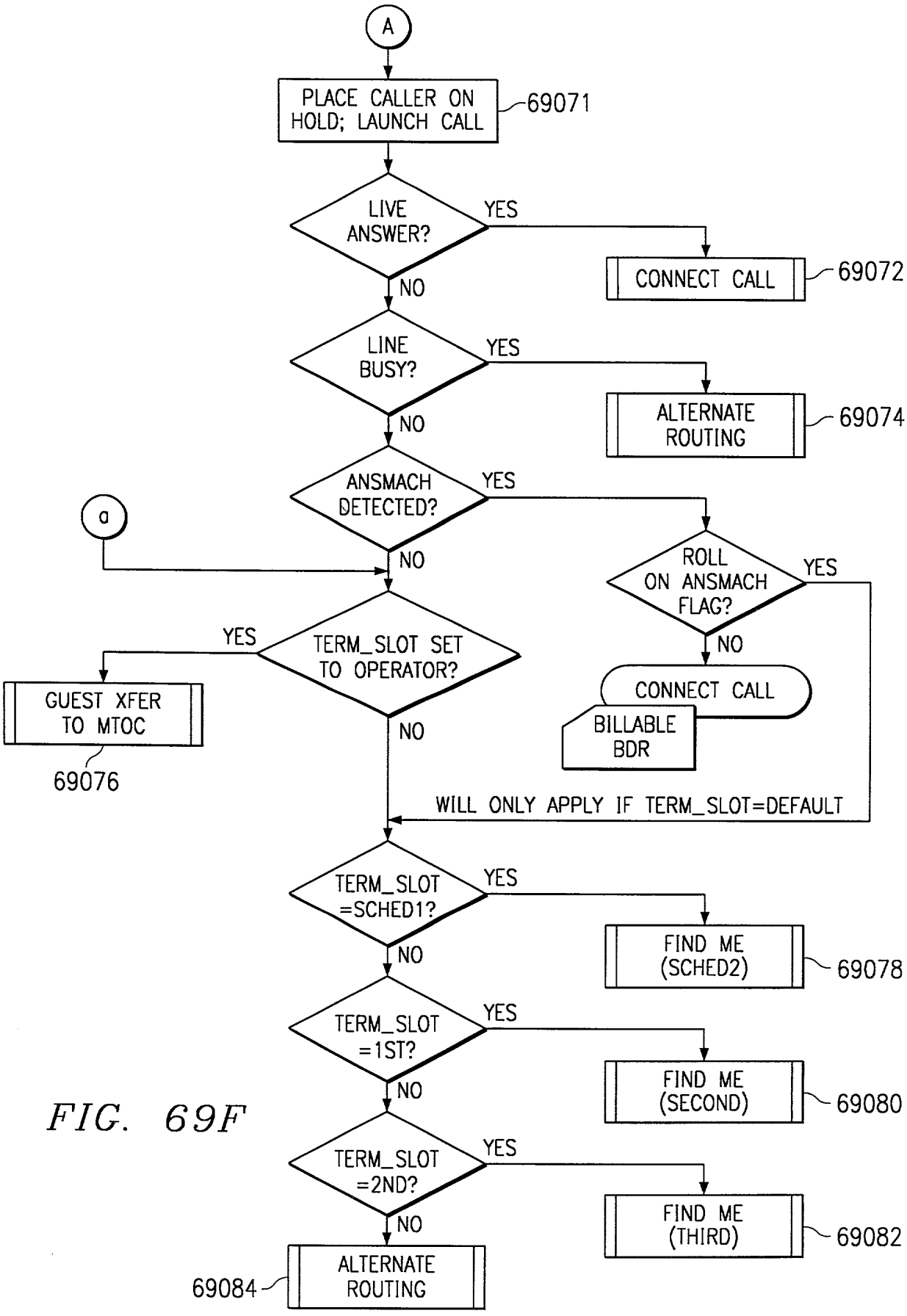

A
PLACE CALLER ON HOLD; LAUNCH CALL
69071
LIVE ANSWER?
YES
CONNECT CALL
69072
NO
LINE BUSY?
YES
ALTERNATE ROUTING
69074
NO
ANSMACH DETECTED?
YES
a
NO
ROLL ON ANSMACH FLAG?
YES
NO
CONNECT CALL
BILLABLE BDR
YES
TERM_SLOT SET TO OPERATOR?
GUEST XFER TO MTOC
69076
NO
WILL ONLY APPLY IF TERM_SLOT=DEFAULT
TERM_SLOT =SCHED1?
YES
FIND ME (SCHED2)
69078
NO
TERM_SLOT =1ST?
YES
FIND ME (SECOND)
69080
NO
TERM_SLOT =2ND?
YES
FIND ME (THIRD)
69082
NO
ALTERNATE ROUTING
69084

FIG. 69F

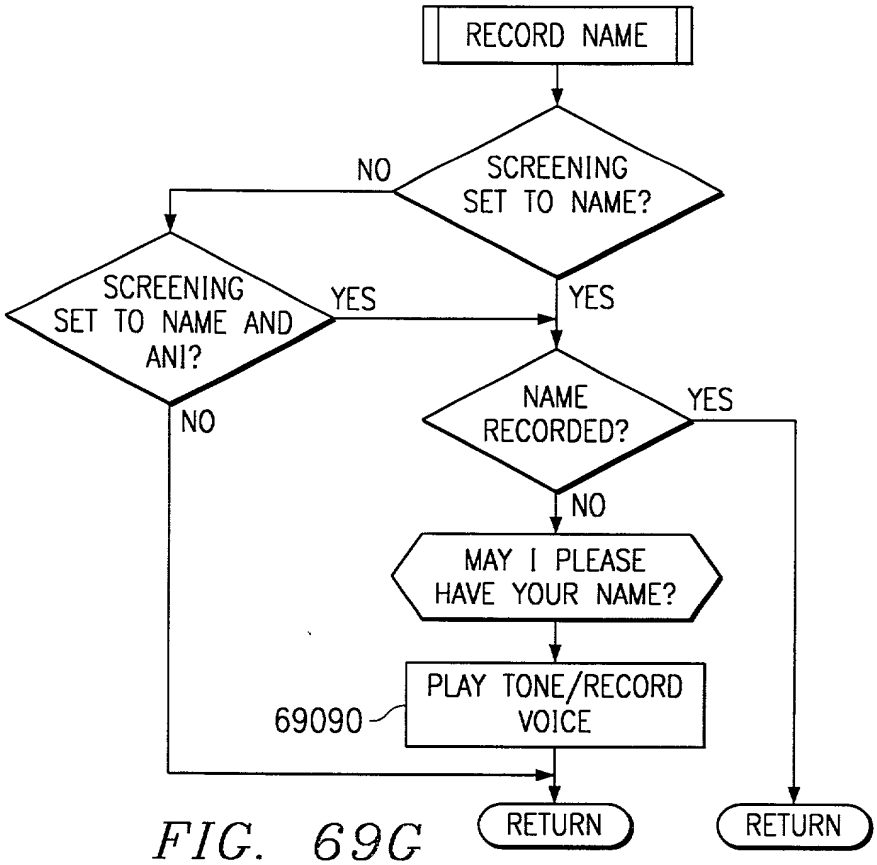


FIG. 69G

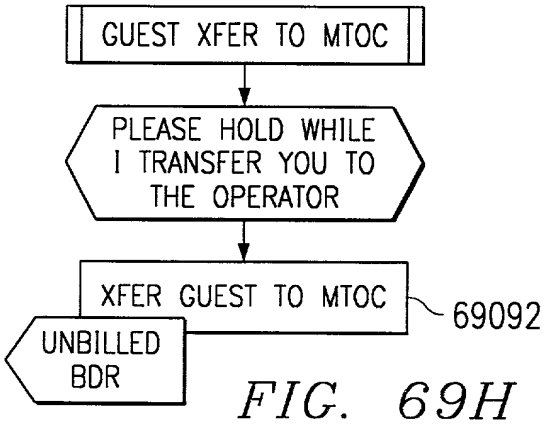


FIG. 69H

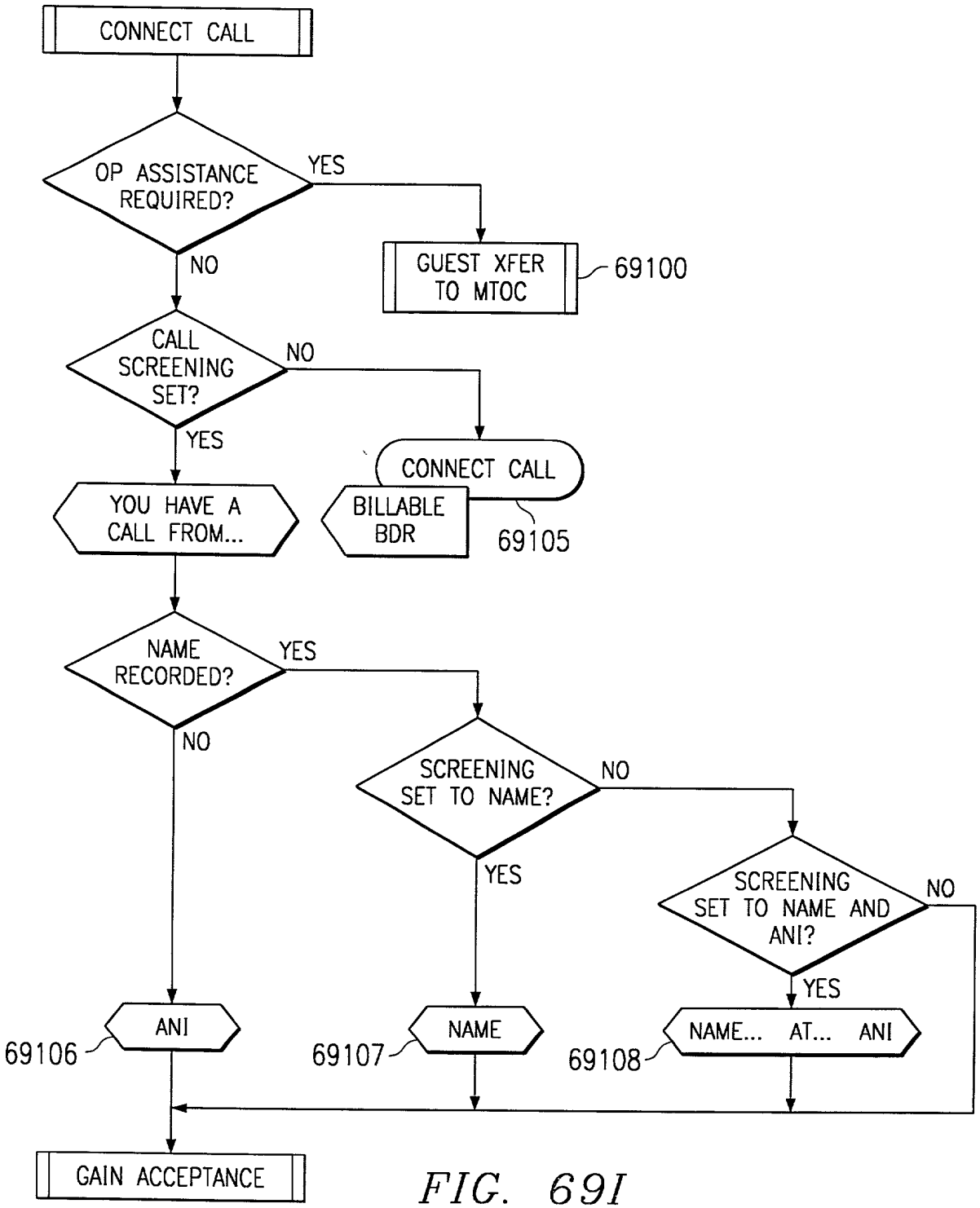

CONNECT CALL
OP ASSISTANCE REQUIRED?
YES
NO
GUEST XFER TO MTOC
69100
CALL SCREENING SET?
NO
YES
CONNECT CALL
BILLABLE BDR
69105
YOU HAVE A CALL FROM...
NAME RECORDED?
YES
NO
SCREENING SET TO NAME?
NO
YES
SCREENING SET TO NAME AND ANI?
NO
YES
ANI
69106
NAME
69107
NAME... AT... ANI
69108
GAIN ACCEPTANCE

FIG. 69I

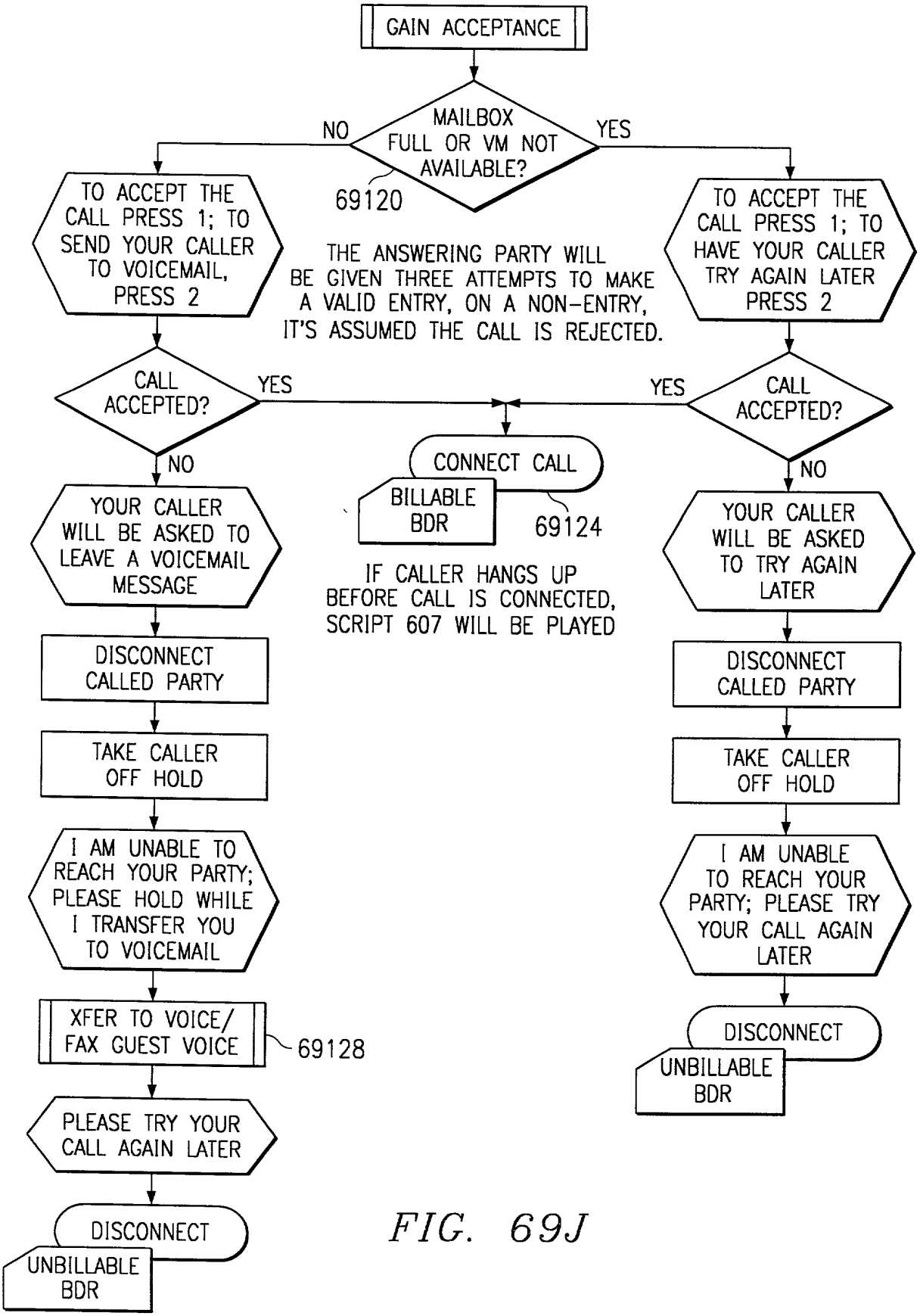

GAIN ACCEPTANCE
MAILBOX FULL OR VM NOT AVAILABLE?
NO
YES
69120
TO ACCEPT THE CALL PRESS 1; TO SEND YOUR CALLER TO VOICEMAIL, PRESS 2
TO ACCEPT THE CALL PRESS 1; TO HAVE YOUR CALLER TRY AGAIN LATER PRESS 2
THE ANSWERING PARTY WILL BE GIVEN THREE ATTEMPTS TO MAKE A VALID ENTRY, ON A NON-ENTRY, IT'S ASSUMED THE CALL IS REJECTED.
CALL ACCEPTED?
YES
NO
CONNECT CALL
BILLABLE BDR
69124
IF CALLER HANGS UP BEFORE CALL IS CONNECTED, SCRIPT 607 WILL BE PLAYED
YOUR CALLER WILL BE ASKED TO LEAVE A VOICEMAIL MESSAGE
YOUR CALLER WILL BE ASKED TO TRY AGAIN LATER
DISCONNECT CALLED PARTY
TAKE CALLER OFF HOLD
I AM UNABLE TO REACH YOUR PARTY; PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
I AM UNABLE TO REACH YOUR PARTY; PLEASE TRY YOUR CALL AGAIN LATER
XFER TO VOICE/ FAX GUEST VOICE
69128
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT
UNBILLABLE BDR
DISCONNECT
UNBILLABLE BDR

FIG. 69J

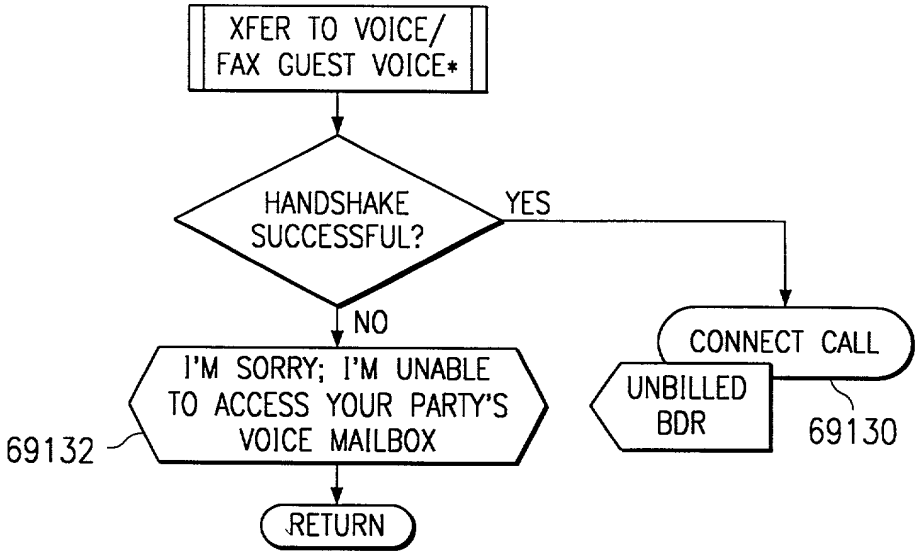


FIG. 69K

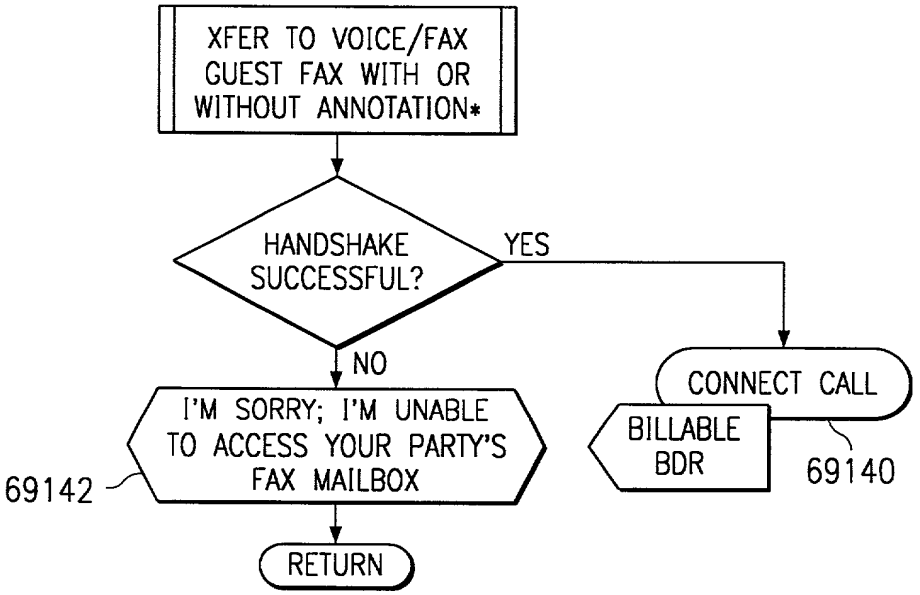


FIG. 69L

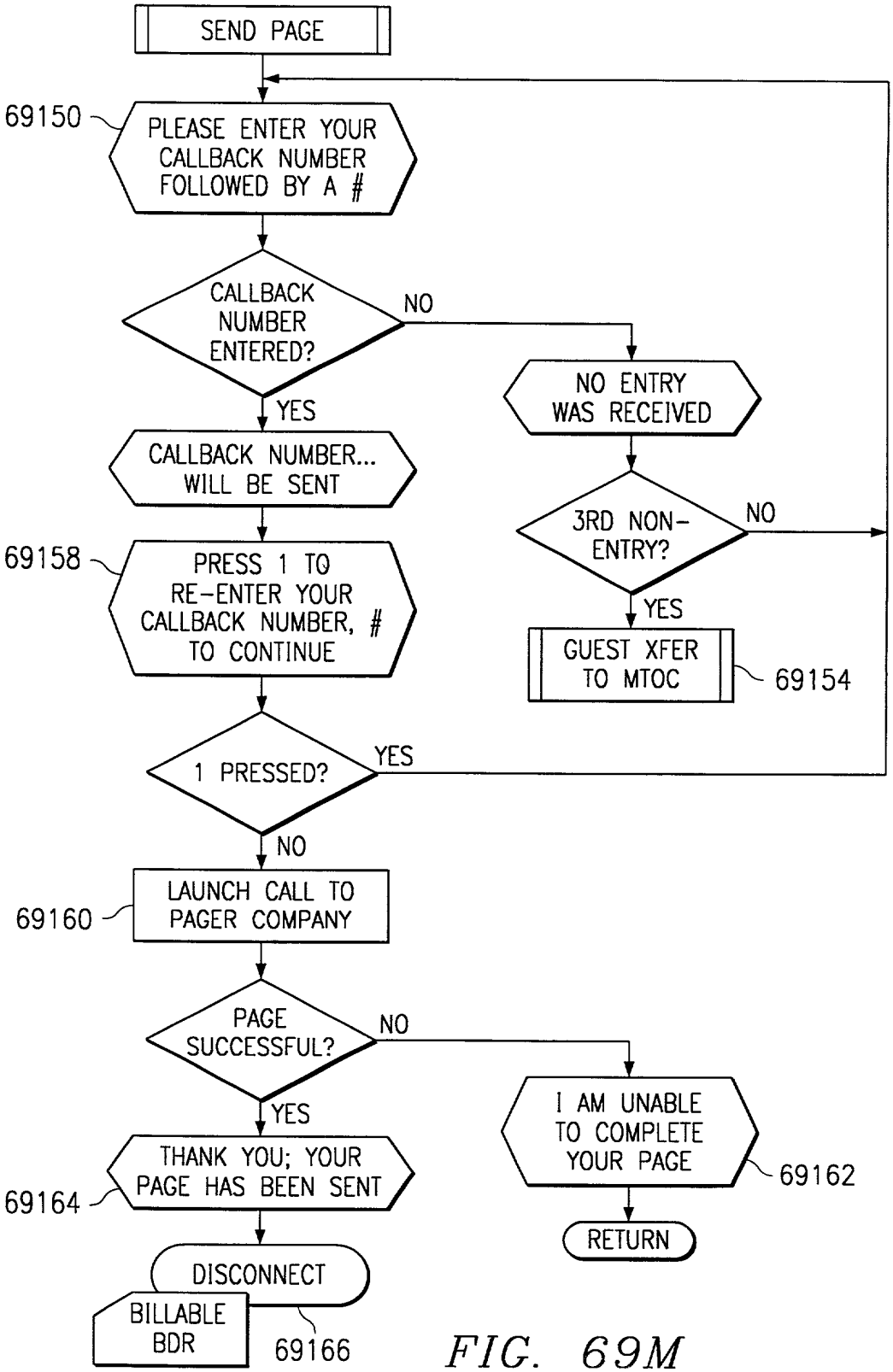

SEND PAGE
69150
PLEASE ENTER YOUR CALLBACK NUMBER FOLLOWED BY A #
CALLBACK NUMBER ENTERED?
NO
YES
NO ENTRY WAS RECEIVED
CALLBACK NUMBER... WILL BE SENT
3RD NON-ENTRY?
NO
YES
69158
PRESS 1 TO RE-ENTER YOUR CALLBACK NUMBER, # TO CONTINUE
GUEST XFER TO MTOC
69154
1 PRESSED?
YES
NO
69160
LAUNCH CALL TO PAGER COMPANY
PAGE SUCCESSFUL?
NO
YES
I AM UNABLE TO COMPLETE YOUR PAGE
69162
RETURN
69164
THANK YOU; YOUR PAGE HAS BEEN SENT
DISCONNECT
BILLABLE BDR
69166

FIG. 69M

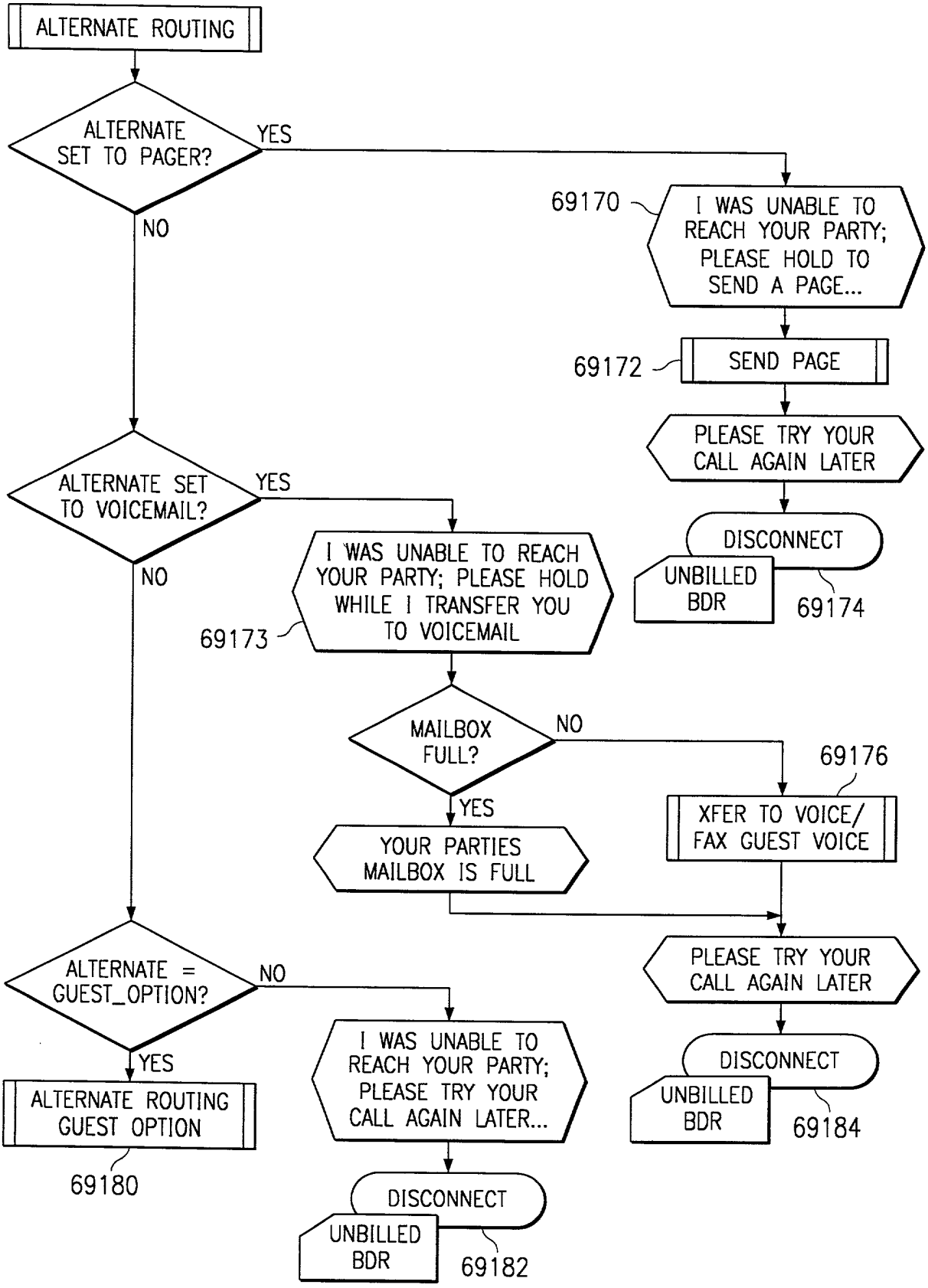

ALTERNATE ROUTING
ALTERNATE SET TO PAGER?
YES
NO
69170
I WAS UNABLE TO REACH YOUR PARTY; PLEASE HOLD TO SEND A PAGE...
69172
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT
UNBILLED BDR
69174
ALTERNATE SET TO VOICEMAIL?
YES
NO
I WAS UNABLE TO REACH YOUR PARTY; PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
69173
MAILBOX FULL?
NO
YES
YOUR PARTIES MAILBOX IS FULL
69176
XFER TO VOICE/ FAX GUEST VOICE
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT
UNBILLED BDR
69184
ALTERNATE = GUEST_OPTION?
NO
YES
ALTERNATE ROUTING GUEST OPTION
69180
I WAS UNABLE TO REACH YOUR PARTY; PLEASE TRY YOUR CALL AGAIN LATER...
DISCONNECT
UNBILLED BDR
69182

FIG. 69N

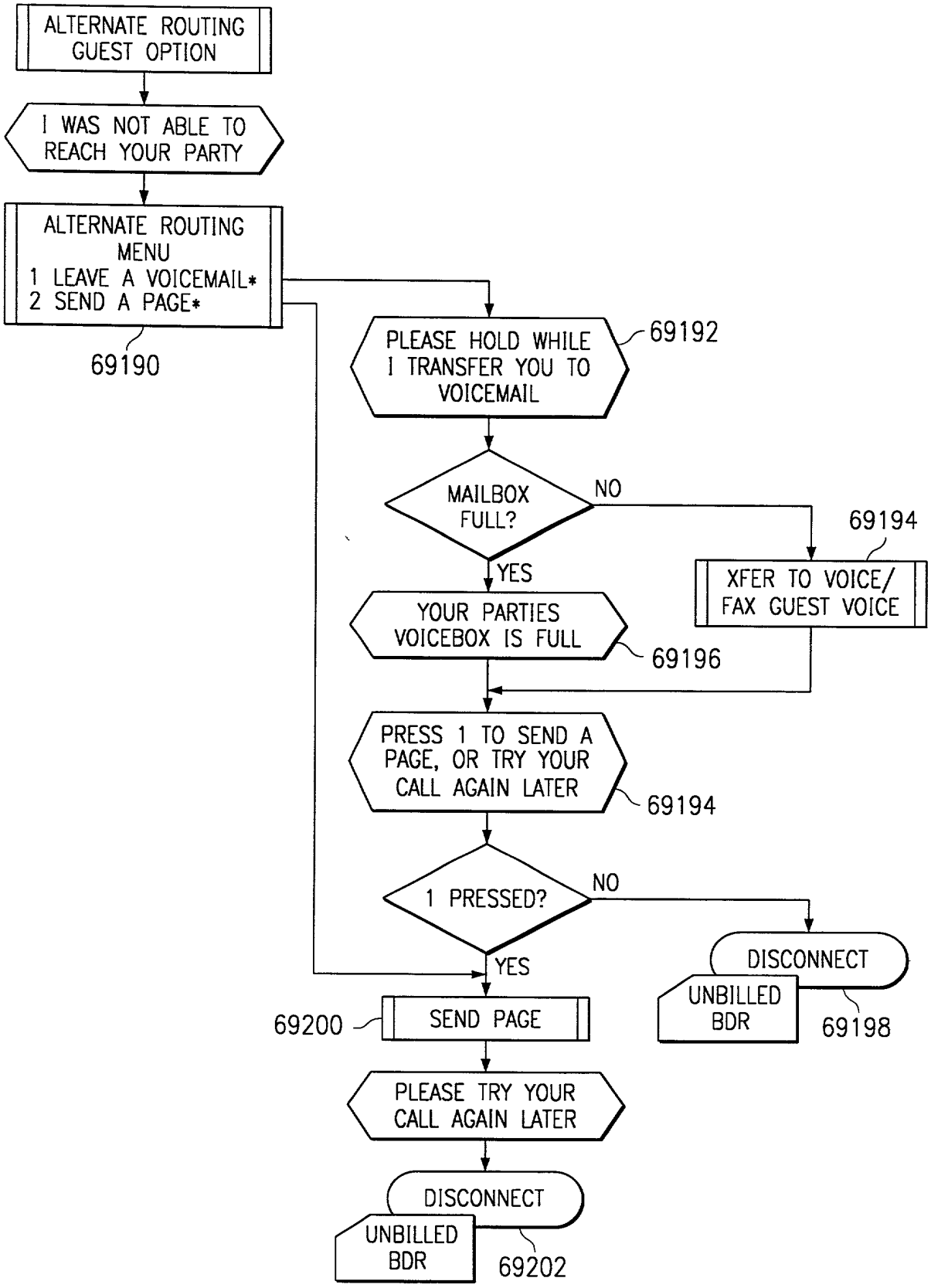

ALTERNATE ROUTING GUEST OPTION
I WAS NOT ABLE TO REACH YOUR PARTY
ALTERNATE ROUTING MENU
1 LEAVE A VOICEMAIL*
2 SEND A PAGE*
69190
PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL
69192
MAILBOX FULL?
NO
YES
69194
XFER TO VOICE/ FAX GUEST VOICE
YOUR PARTIES VOICEBOX IS FULL
69196
PRESS 1 TO SEND A PAGE, OR TRY YOUR CALL AGAIN LATER
69194
1 PRESSED?
NO
YES
DISCONNECT
UNBILLED BDR
69198
69200
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER
DISCONNECT
UNBILLED BDR
69202

FIG. 690

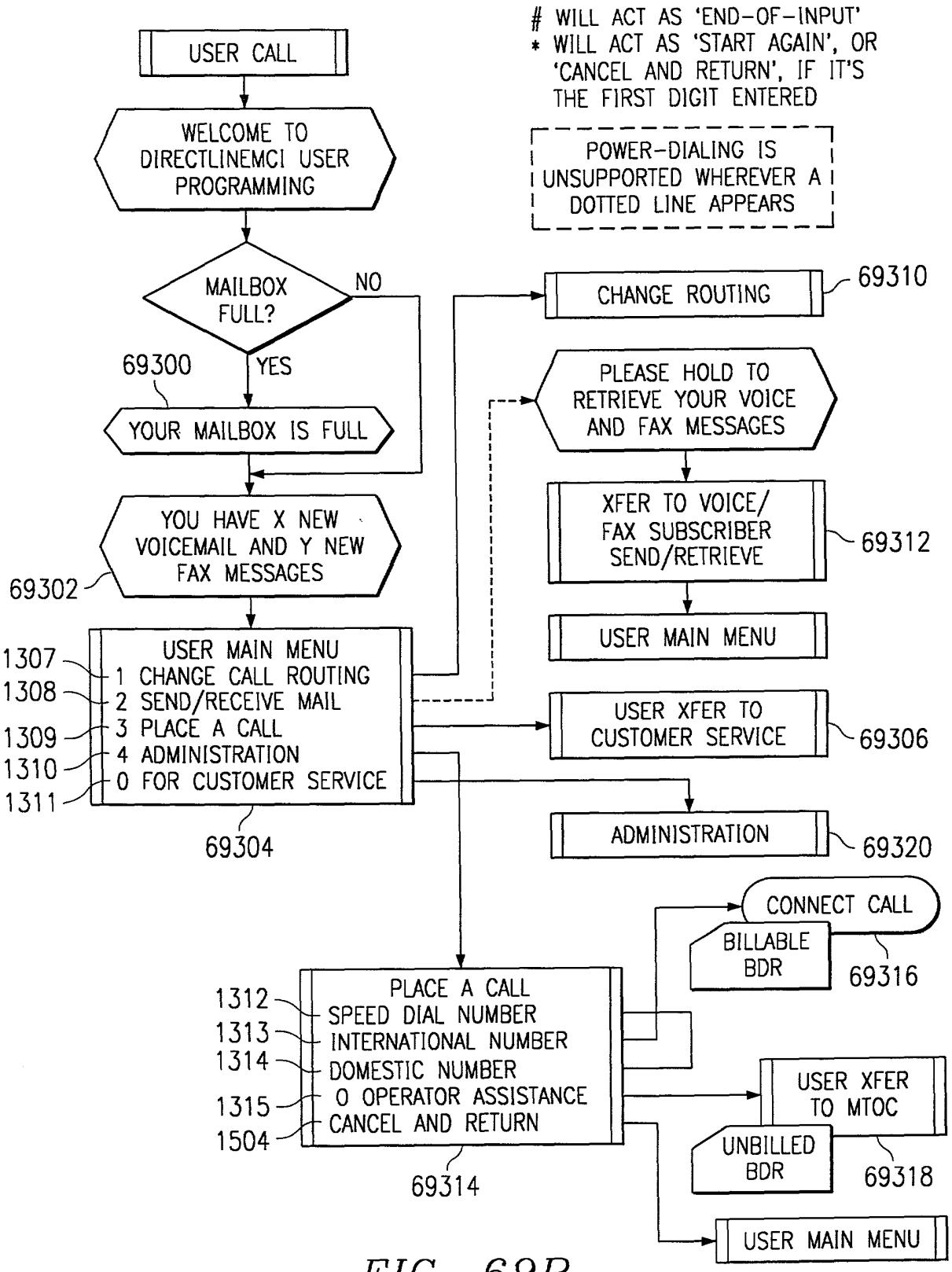

WILL ACT AS 'END-OF-INPUT'
* WILL ACT AS 'START AGAIN', OR 'CANCEL AND RETURN', IF IT'S THE FIRST DIGIT ENTERED
POWER-DIALING IS UNSUPPORTED WHEREVER A DOTTED LINE APPEARS
USER CALL
WELCOME TO DIRECTLINEMCI USER PROGRAMMING
MAILBOX FULL?
NO
YES
69300
YOUR MAILBOX IS FULL
YOU HAVE X NEW VOICEMAIL AND Y NEW FAX MESSAGES
69302
USER MAIN MENU
1307 1 CHANGE CALL ROUTING
1308 2 SEND/RECEIVE MAIL
1309 3 PLACE A CALL
1310 4 ADMINISTRATION
1311 0 FOR CUSTOMER SERVICE
69304
CHANGE ROUTING
69310
PLEASE HOLD TO RETRIEVE YOUR VOICE AND FAX MESSAGES
XFER TO VOICE/ FAX SUBSCRIBER SEND/RETRIEVE
69312
USER MAIN MENU
USER XFER TO CUSTOMER SERVICE
69306
ADMINISTRATION
69320
CONNECT CALL
BILLABLE BDR
69316
PLACE A CALL
1312 SPEED DIAL NUMBER
1313 INTERNATIONAL NUMBER
1314 DOMESTIC NUMBER
1315 0 OPERATOR ASSISTANCE
1504 CANCEL AND RETURN
69314
USER XFER TO MTOC
UNBILLED BDR
69318
USER MAIN MENU

FIG. 69P

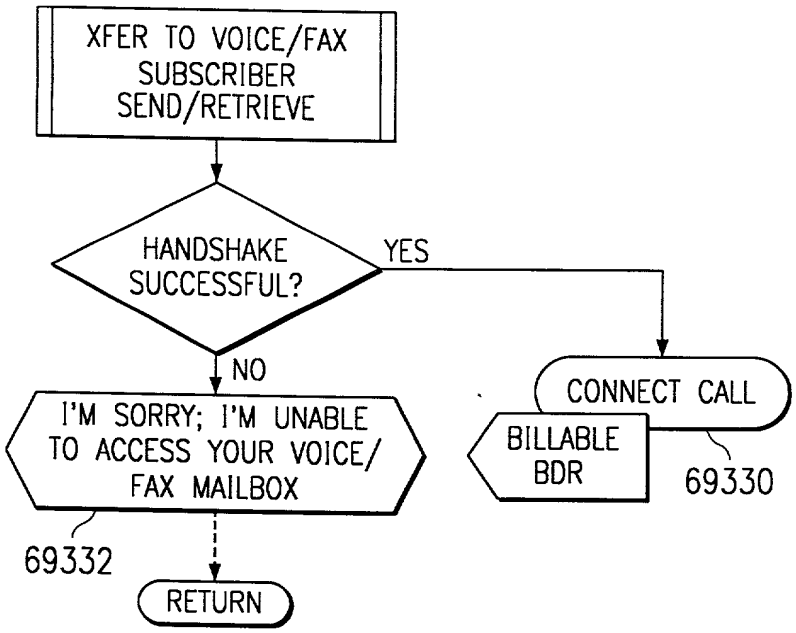


FIG. 69Q

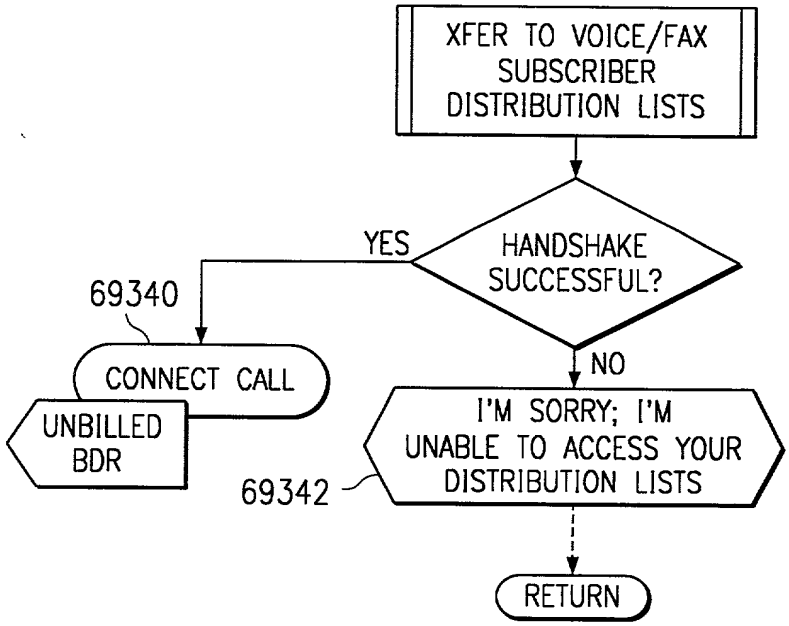


FIG. 69R

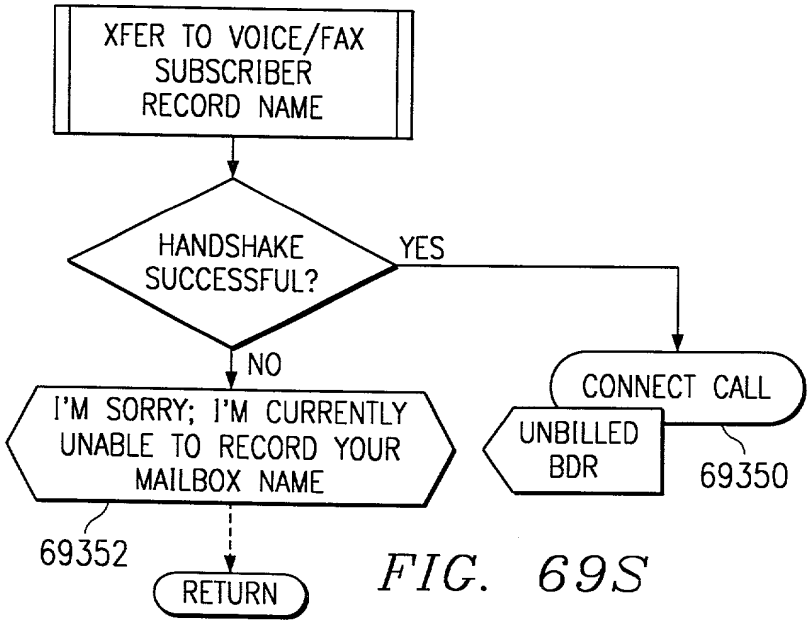


FIG. 69S

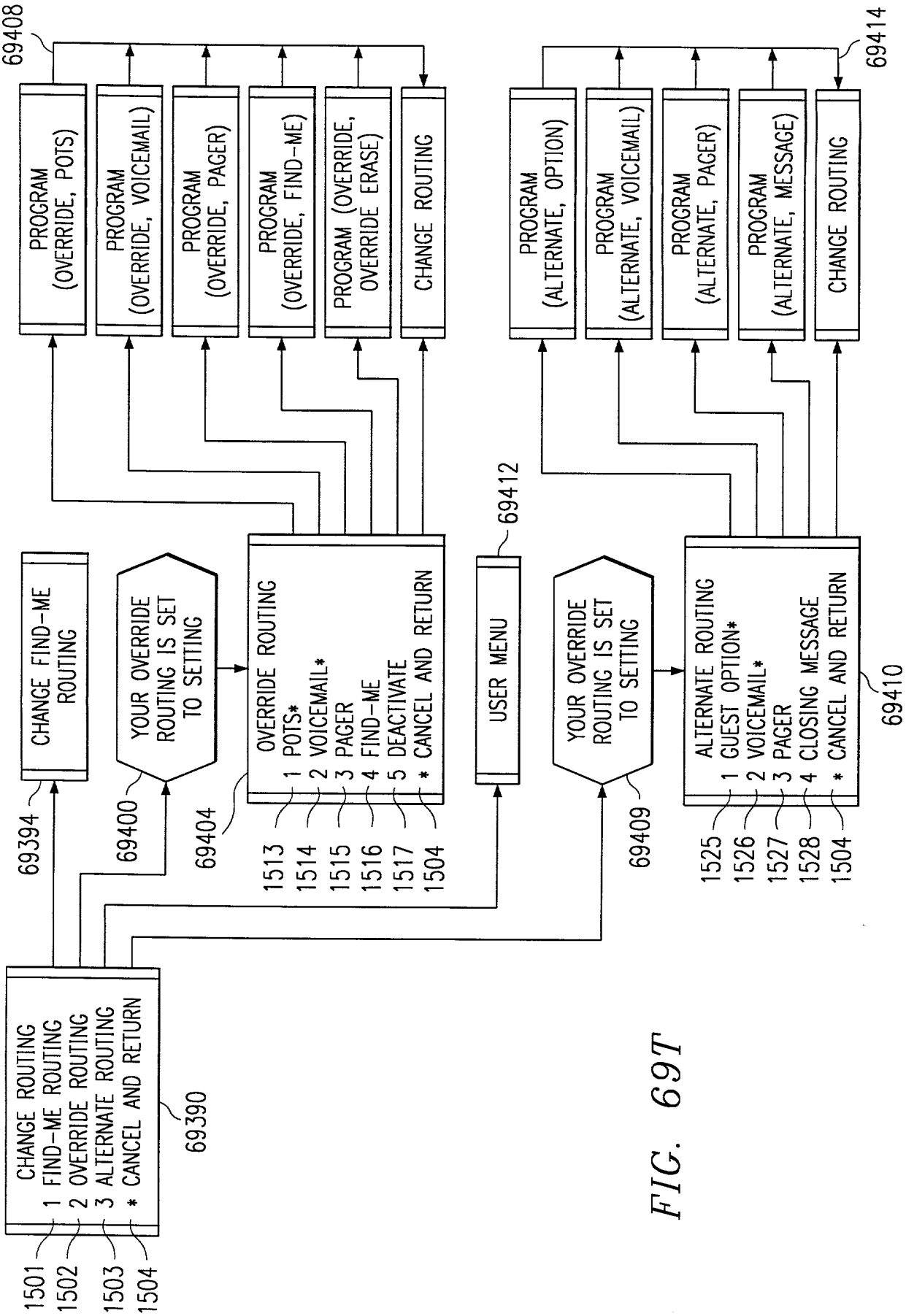

CHANGE ROUTING
1 FIND-ME ROUTING
2 OVERRIDE ROUTING
3 ALTERNATE ROUTING
* CANCEL AND RETURN
69390
1501
1502
1503
1504
CHANGE FIND-ME ROUTING
69394
YOUR OVERRIDE ROUTING IS SET TO SETTING
69400
OVERRIDE ROUTING
1 POTS*
2 VOICEMAIL*
3 PAGER
4 FIND-ME
5 DEACTIVATE
* CANCEL AND RETURN
69404
1513
1514
1515
1516
1517
1504
USER MENU
69412
YOUR OVERRIDE ROUTING IS SET TO SETTING
69409
ALTERNATE ROUTING
1 GUEST OPTION*
2 VOICEMAIL*
3 PAGER
4 CLOSING MESSAGE
* CANCEL AND RETURN
69410
1525
1526
1527
1528
1504
PROGRAM (OVERRIDE, POTS)
PROGRAM (OVERRIDE, VOICEMAIL)
PROGRAM (OVERRIDE, PAGER)
PROGRAM (OVERRIDE, FIND-ME)
PROGRAM (OVERRIDE, OVERRIDE ERASE)
CHANGE ROUTING
69408
PROGRAM (ALTERNATE, OPTION)
PROGRAM (ALTERNATE, VOICEMAIL)
PROGRAM (ALTERNATE, PAGER)
PROGRAM (ALTERNATE, MESSAGE)
CHANGE ROUTING
69414

FIG. 69T

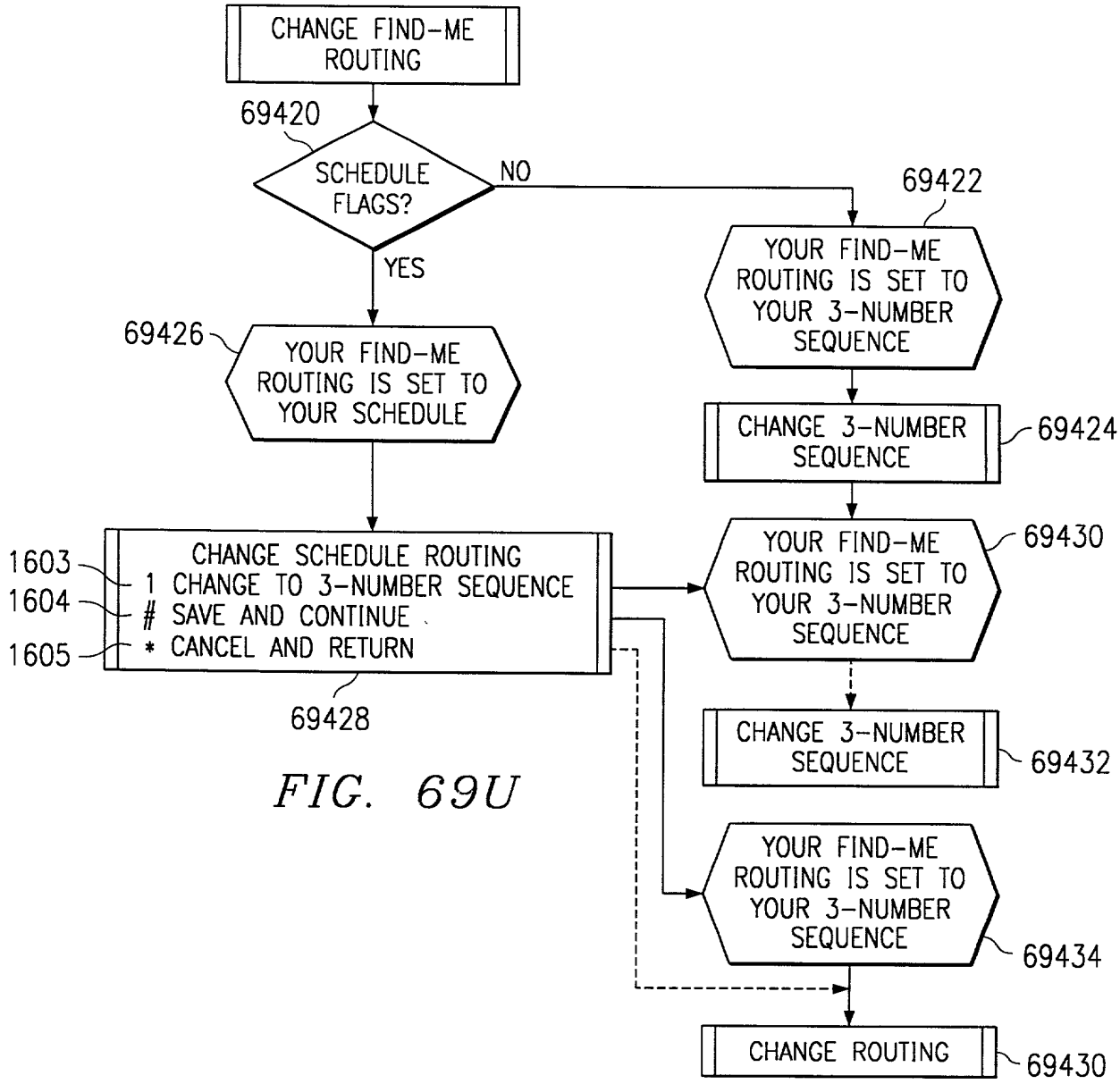


FIG. 69U

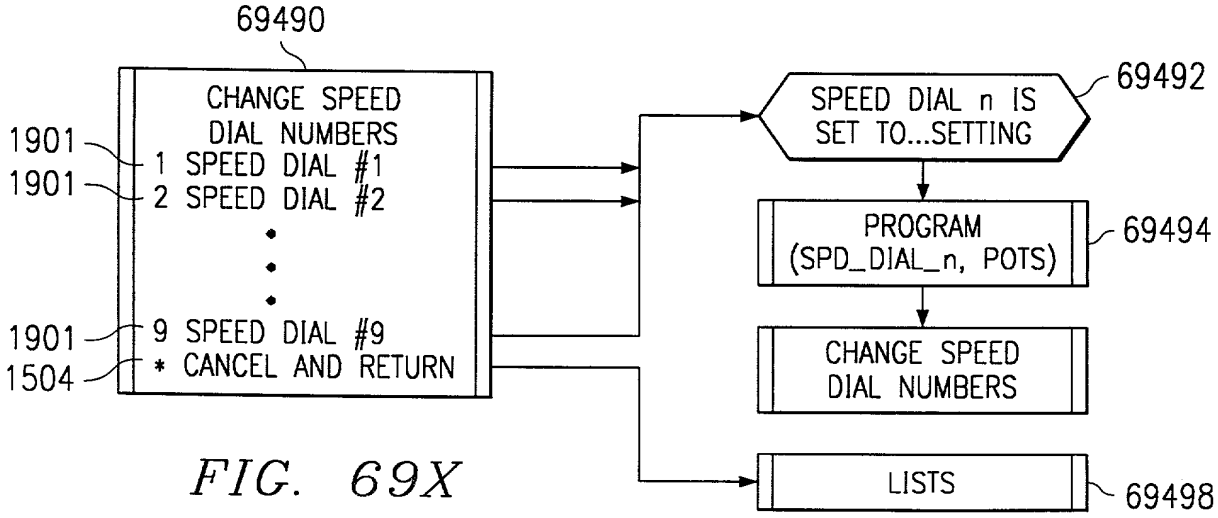


FIG. 69X

TOMT90 E0866286D

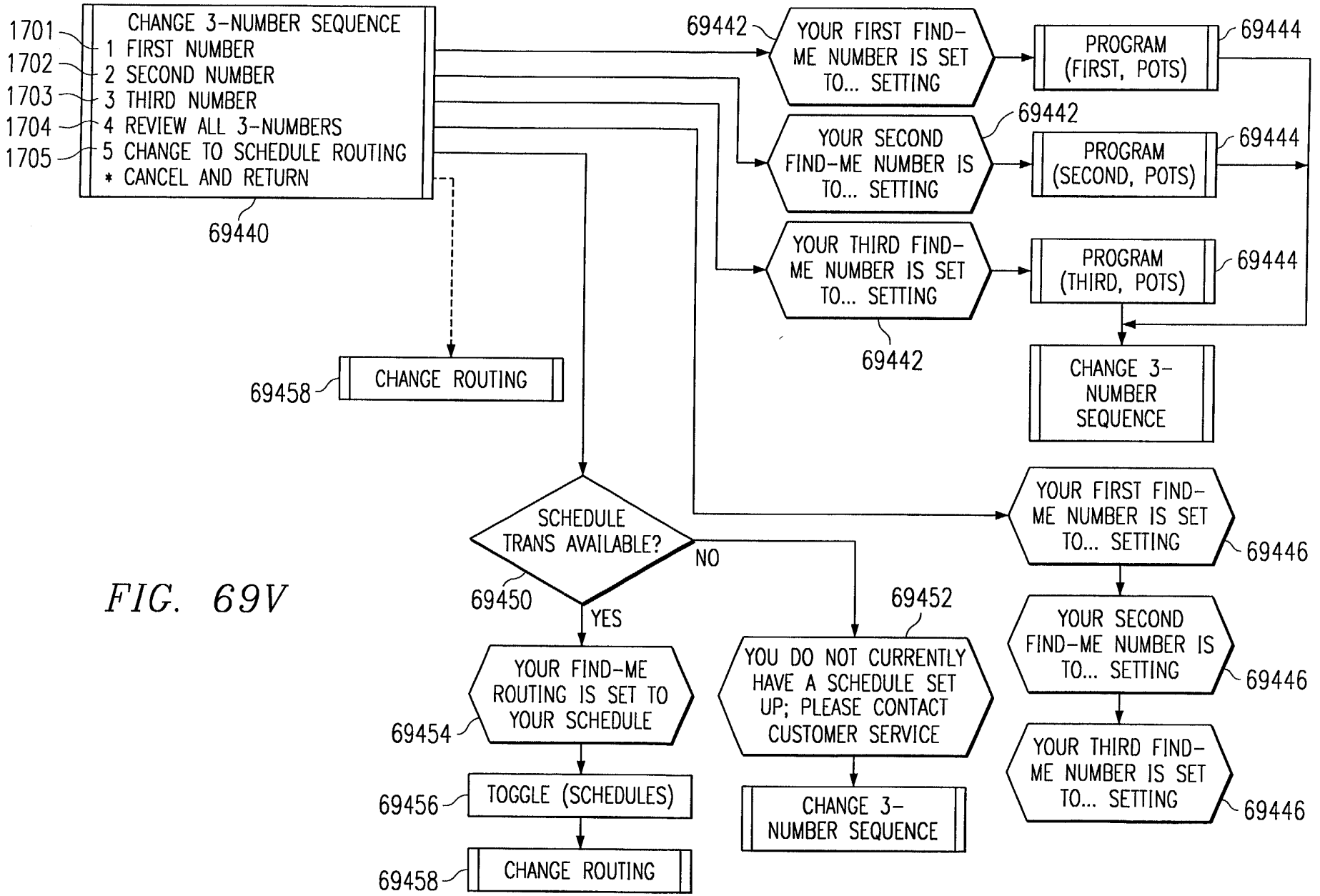


FIG. 69V

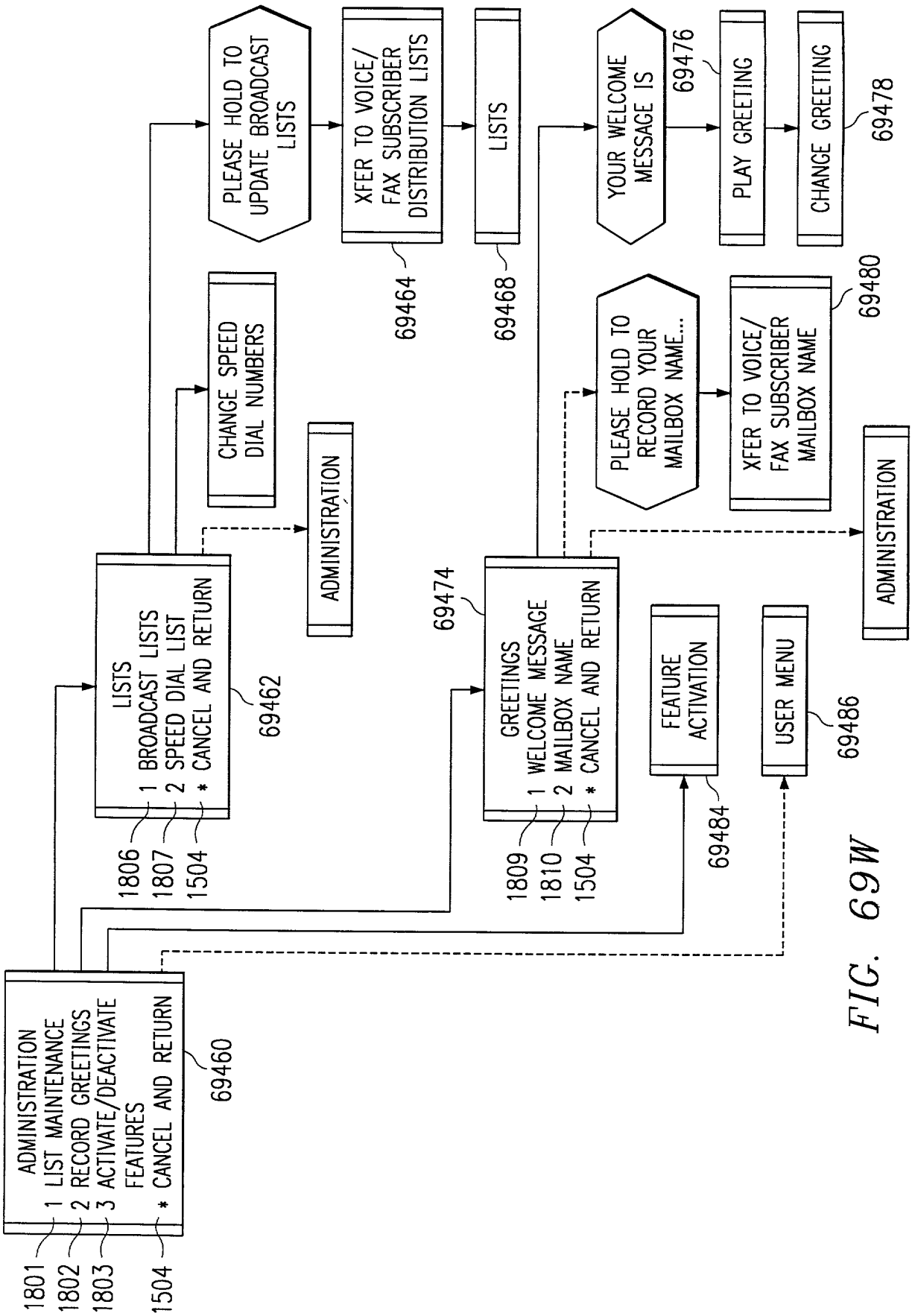

ADMINISTRATION
1 LIST MAINTENANCE
2 RECORD GREETINGS
3 ACTIVATE/DEACTIVATE FEATURES
* CANCEL AND RETURN
69460
1801
1802
1803
1504
LISTS
1 BROADCAST LISTS
2 SPEED DIAL LIST
* CANCEL AND RETURN
69462
1806
1807
1504
PLEASE HOLD TO UPDATE BROADCAST LISTS
XFER TO VOICE/ FAX SUBSCRIBER DISTRIBUTION LISTS
69464
LISTS
69468
CHANGE SPEED DIAL NUMBERS
ADMINISTRATION
GREETINGS
1 WELCOME MESSAGE
2 MAILBOX NAME
* CANCEL AND RETURN
69474
1809
1810
1504
YOUR WELCOME MESSAGE IS
69476
PLAY GREETING
CHANGE GREETING
69478
PLEASE HOLD TO RECORD YOUR MAILBOX NAME...
XFER TO VOICE/ FAX SUBSCRIBER MAILBOX NAME
69480
ADMINISTRATION
FEATURE ACTIVATION
69484
USER MENU
69486

FIG. 69W

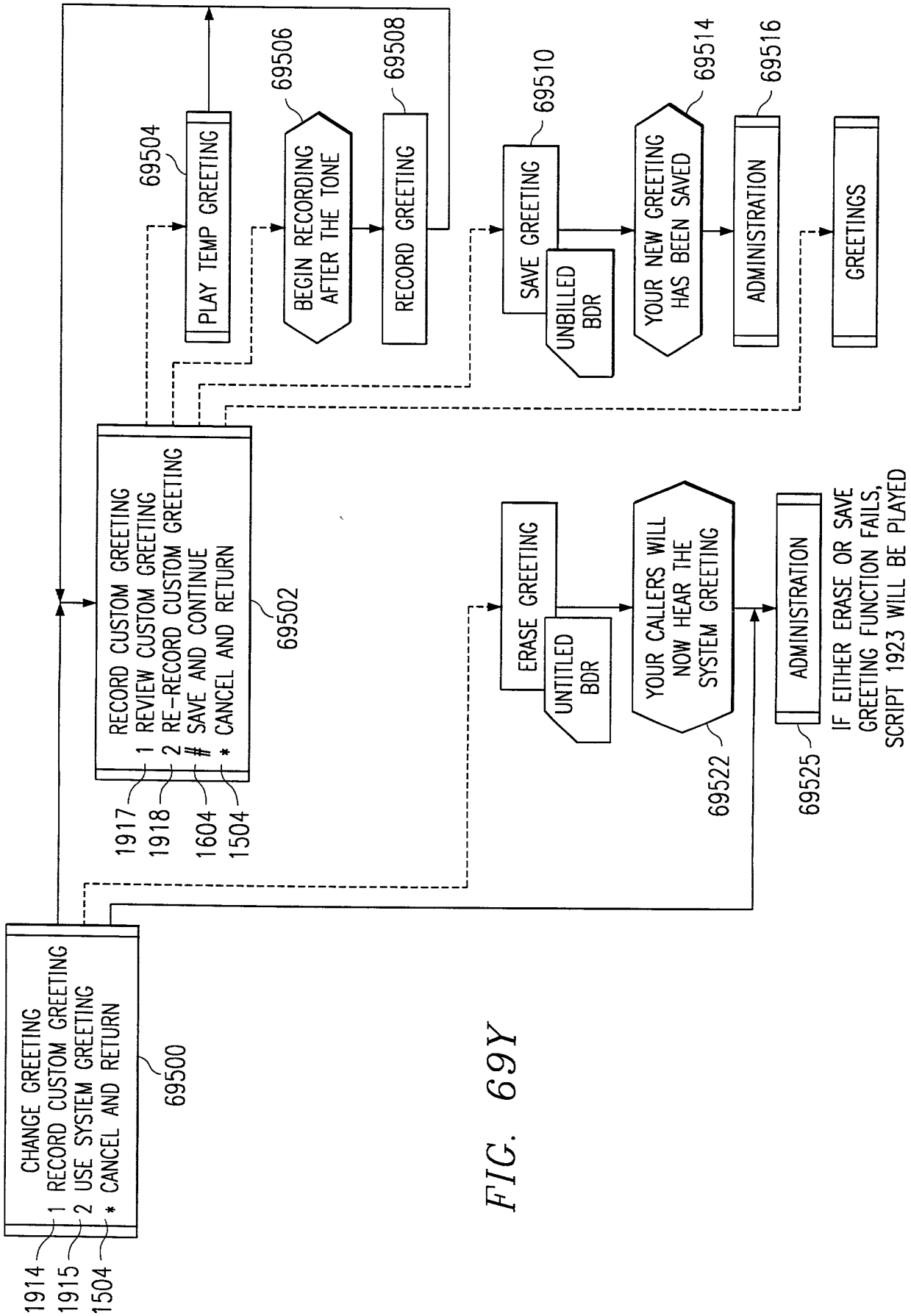

CHANGE GREETING
1 RECORD CUSTOM GREETING
2 USE SYSTEM GREETING
* CANCEL AND RETURN
69500
1914
1915
1504
RECORD CUSTOM GREETING
1 REVIEW CUSTOM GREETING
2 RE-RECORD CUSTOM GREETING
SAVE AND CONTINUE
* CANCEL AND RETURN
69502
1917
1918
1604
1504
PLAY TEMP GREETING
69504
BEGIN RECORDING AFTER THE TONE
69506
RECORD GREETING
69508
SAVE GREETING
69510
UNBILLED BDR
YOUR NEW GREETING HAS BEEN SAVED
69514
ADMINISTRATION
69516
GREETINGS
ERASE GREETING
UNTITLED BDR
YOUR CALLERS WILL NOW HEAR THE SYSTEM GREETING
69522
ADMINISTRATION
69525
IF EITHER ERASE OR SAVE GREETING FUNCTION FAILS, SCRIPT 1923 WILL BE PLAYED

FIG. 69Y

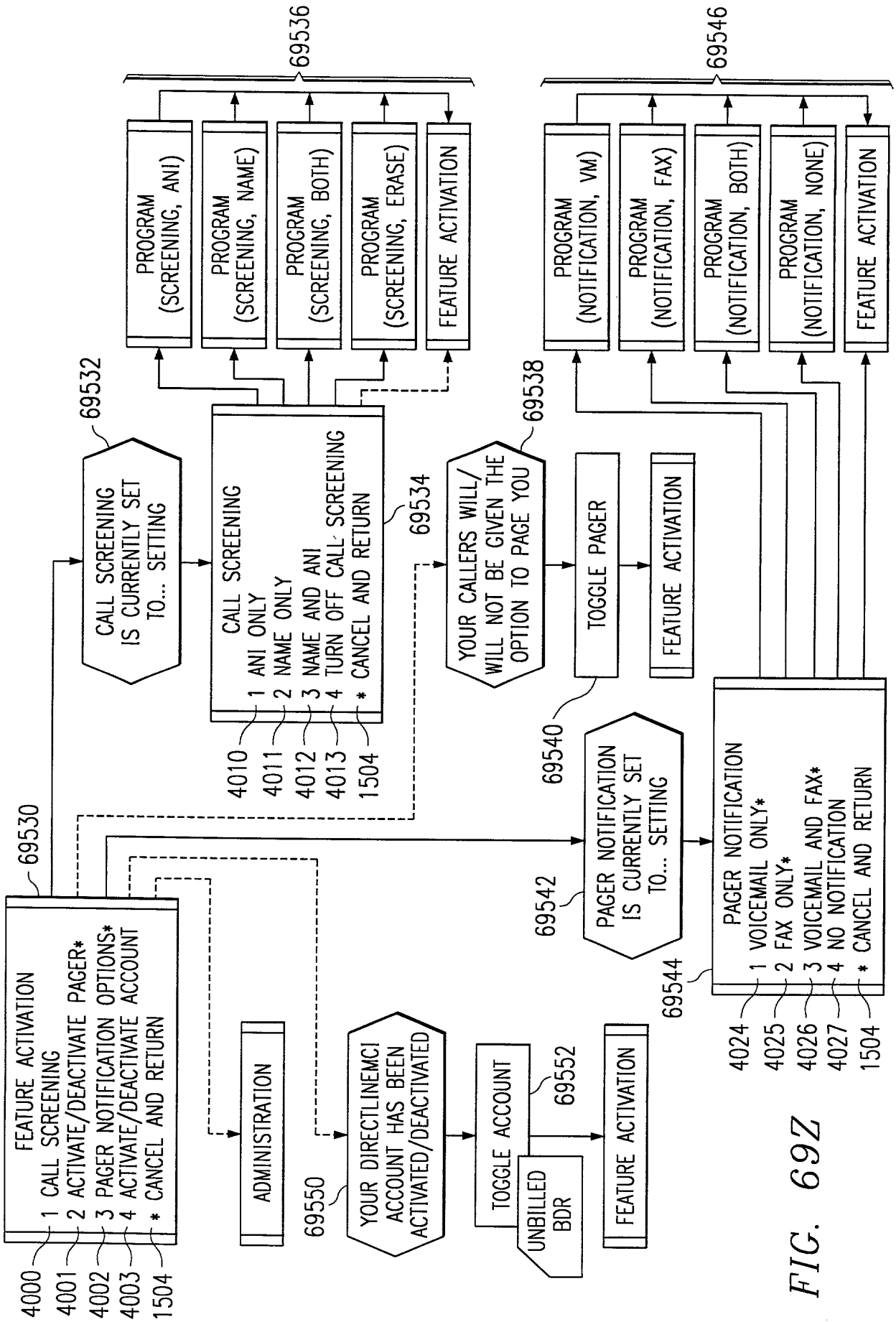

69536
69546
PROGRAM (SCREENING, ANI)
PROGRAM (SCREENING, NAME)
PROGRAM (SCREENING, BOTH)
PROGRAM (SCREENING, ERASE)
FEATURE ACTIVATION
PROGRAM (NOTIFICATION, VM)
PROGRAM (NOTIFICATION, FAX)
PROGRAM (NOTIFICATION, BOTH)
PROGRAM (NOTIFICATION, NONE)
FEATURE ACTIVATION
69532
CALL SCREENING IS CURRENTLY SET TO... SETTING
CALL SCREENING
1 ANI ONLY
2 NAME ONLY
3 NAME AND ANI
4 TURN OFF CALL SCREENING
* CANCEL AND RETURN
69534
69538
YOUR CALLERS WILL/ WILL NOT BE GIVEN THE OPTION TO PAGE YOU
TOGGLE PAGER
FEATURE ACTIVATION
4010
4011
4012
4013
1504
69540
69530
FEATURE ACTIVATION
1 CALL SCREENING
2 ACTIVATE/DEACTIVATE PAGER*
3 PAGER NOTIFICATION OPTIONS*
4 ACTIVATE/DEACTIVATE ACCOUNT
* CANCEL AND RETURN
69542
PAGER NOTIFICATION IS CURRENTLY SET TO... SETTING
PAGER NOTIFICATION
1 VOICEMAIL ONLY*
2 FAX ONLY*
3 VOICEMAIL AND FAX*
4 NO NOTIFICATION
* CANCEL AND RETURN
69544
4000
4001
4002
4003
1504
ADMINISTRATION
69550
YOUR DIRECTLINEMCI ACCOUNT HAS BEEN ACTIVATED/DEACTIVATED
TOGGLE ACCOUNT
UNBILLED BDR
69552
FEATURE ACTIVATION
4024
4025
4026
4027
1504

FIG. 69Z

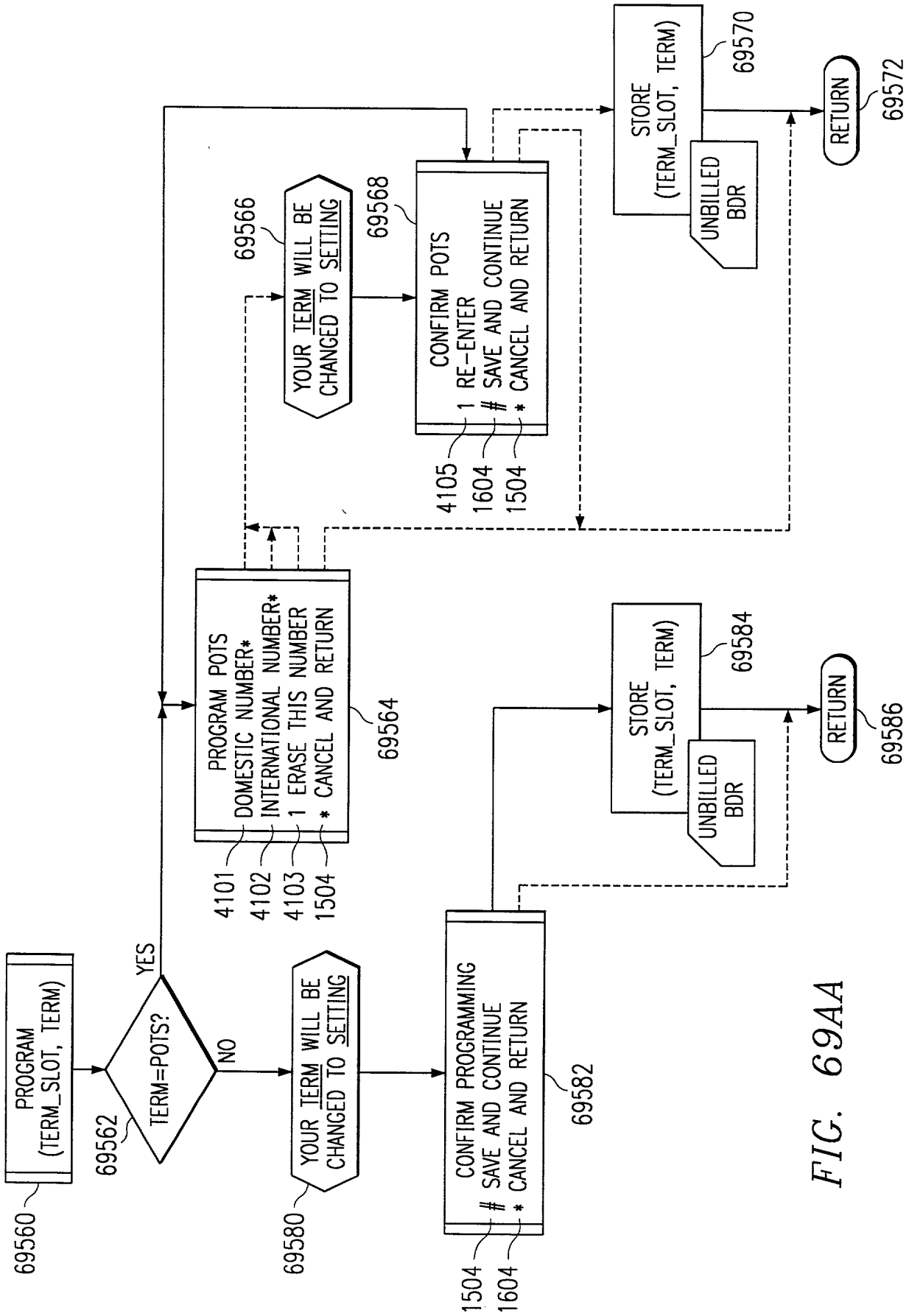

PROGRAM (TERM_SLOT, TERM)
69560
TERM=POTS?
69562
YES
NO
PROGRAM POTS
DOMESTIC NUMBER*
INTERNATIONAL NUMBER*
1 ERASE THIS NUMBER
* CANCEL AND RETURN
69564
4101
4102
4103
1504
YOUR TERM WILL BE CHANGED TO SETTING
69566
CONFIRM POTS
1 RE-ENTER
SAVE AND CONTINUE
* CANCEL AND RETURN
69568
4105
1604
1504
STORE (TERM_SLOT, TERM)
UNBILLED BDR
69570
RETURN
69572
YOUR TERM WILL BE CHANGED TO SETTING
69580
CONFIRM PROGRAMMING
SAVE AND CONTINUE
* CANCEL AND RETURN
69582
1504
1604
STORE (TERM_SLOT, TERM)
UNBILLED BDR
69584
RETURN
69586

FIG. 69A

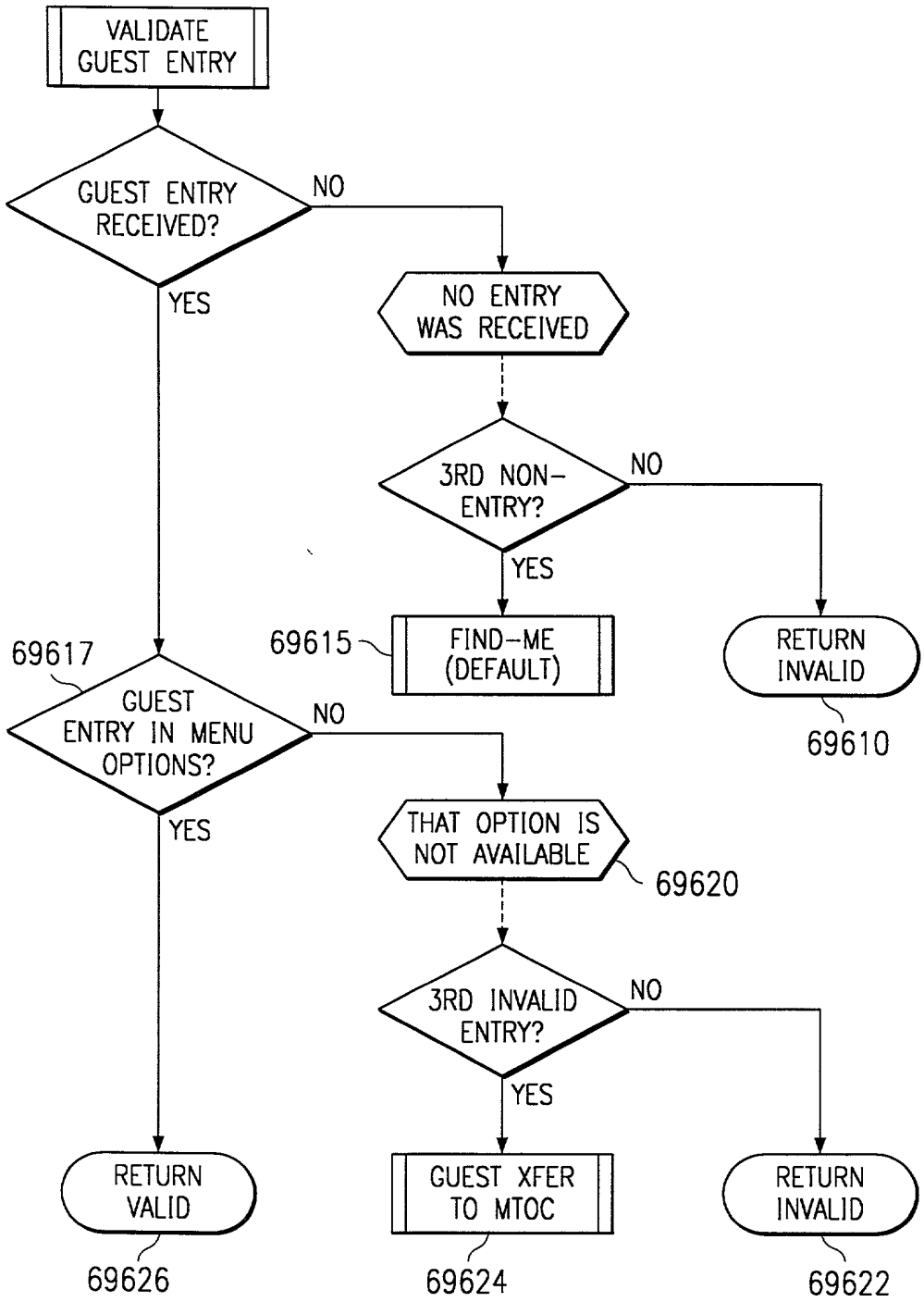

VALIDATE GUEST ENTRY
GUEST ENTRY RECEIVED?
NO
YES
NO ENTRY WAS RECEIVED
3RD NON-ENTRY?
NO
YES
69615
FIND-ME (DEFAULT)
RETURN INVALID
69610
69617
GUEST ENTRY IN MENU OPTIONS?
NO
YES
THAT OPTION IS NOT AVAILABLE
69620
3RD INVALID ENTRY?
NO
YES
RETURN VALID
69626
GUEST XFER TO MTOC
69624
RETURN INVALID
69622

FIG. 69AB

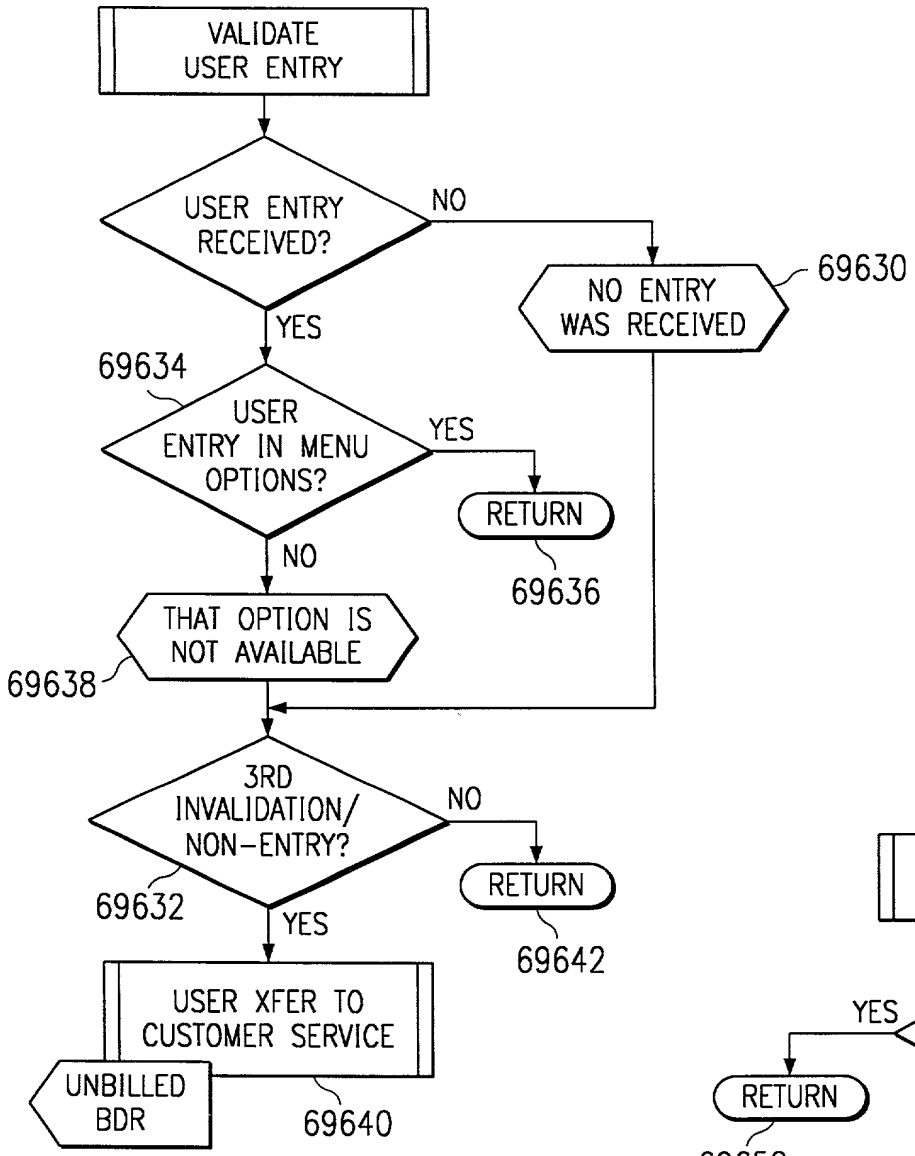


FIG. 69AC

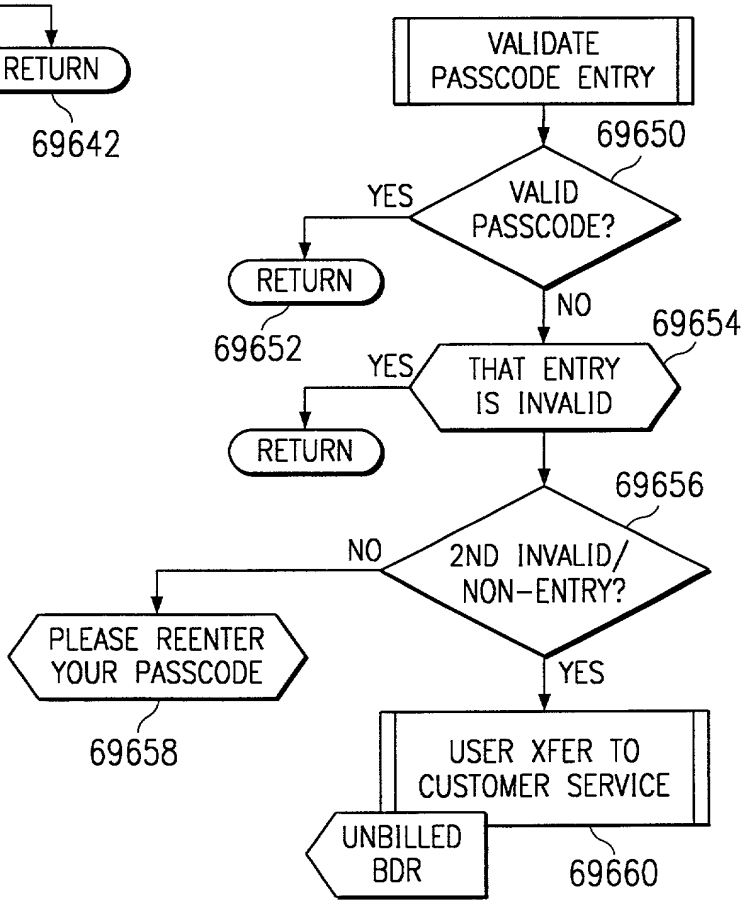


FIG. 69AD

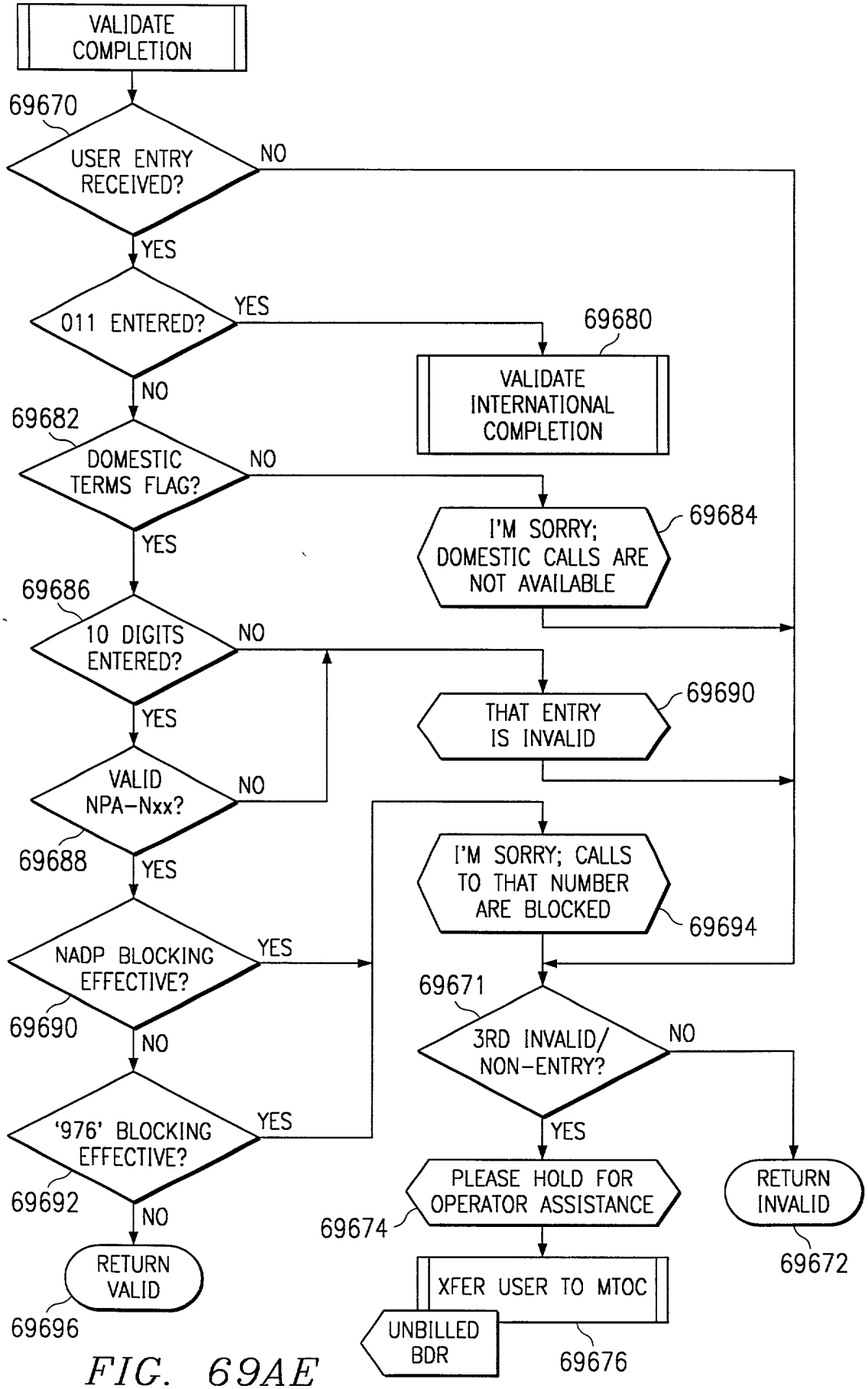

VALIDATE COMPLETION
69670
USER ENTRY RECEIVED?
NO
YES
011 ENTERED?
YES
69680
VALIDATE INTERNATIONAL COMPLETION
NO
69682
DOMESTIC TERMS FLAG?
NO
I'M SORRY; DOMESTIC CALLS ARE NOT AVAILABLE
69684
YES
69686
10 DIGITS ENTERED?
NO
THAT ENTRY IS INVALID
69690
YES
VALID NPA-Nxx?
NO
69688
YES
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED
69694
NADP BLOCKING EFFECTIVE?
YES
69690
69671
NO
3RD INVALID/ NON-ENTRY?
NO
'976' BLOCKING EFFECTIVE?
YES
YES
69692
PLEASE HOLD FOR OPERATOR ASSISTANCE
RETURN INVALID
NO
69674
69672
RETURN VALID
XFER USER TO MTOC
UNBILLED BDR
69696
69676

FIG. 69AE

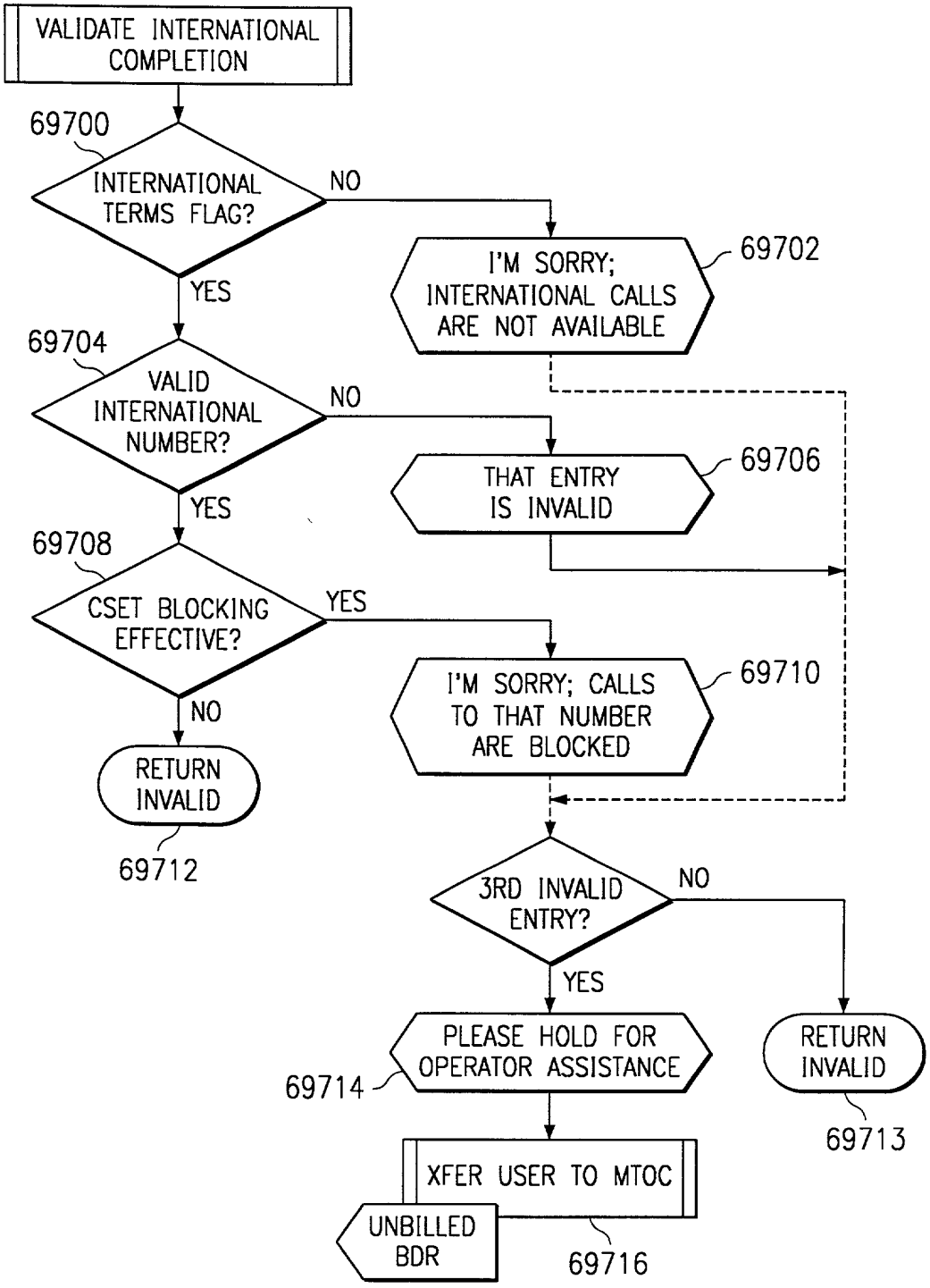

VALIDATE INTERNATIONAL COMPLETION
69700
INTERNATIONAL TERMS FLAG?
NO
YES
I'M SORRY; INTERNATIONAL CALLS ARE NOT AVAILABLE
69702
69704
VALID INTERNATIONAL NUMBER?
NO
YES
THAT ENTRY IS INVALID
69706
69708
CSET BLOCKING EFFECTIVE?
YES
NO
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED
69710
RETURN INVALID
69712
3RD INVALID ENTRY?
NO
YES
PLEASE HOLD FOR OPERATOR ASSISTANCE
69714
RETURN INVALID
69713
XFER USER TO MTOC
UNBILLED BDR
69716

FIG. 69AF

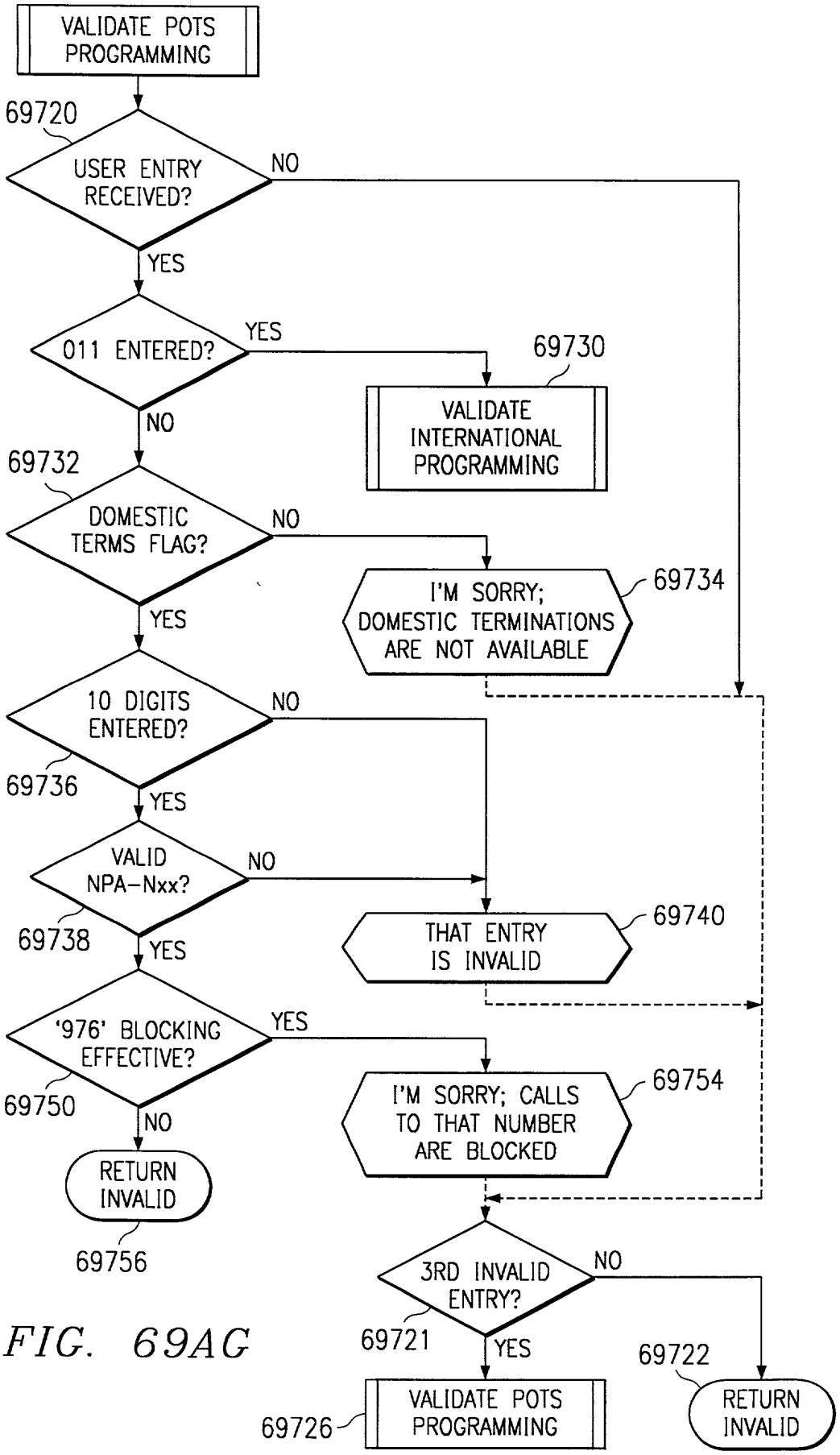

VALIDATE POTS PROGRAMMING
69720
USER ENTRY RECEIVED?
NO
YES
011 ENTERED?
YES
69730
VALIDATE INTERNATIONAL PROGRAMMING
NO
69732
DOMESTIC TERMS FLAG?
NO
I'M SORRY; DOMESTIC TERMINATIONS ARE NOT AVAILABLE
69734
YES
10 DIGITS ENTERED?
NO
69736
YES
VALID NPA-Nxx?
NO
69738
YES
THAT ENTRY IS INVALID
69740
'976' BLOCKING EFFECTIVE?
YES
69750
NO
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED
69754
RETURN INVALID
69756
3RD INVALID ENTRY?
NO
69721
YES
69722
VALIDATE POTS PROGRAMMING
69726
RETURN INVALID

FIG. 69AG

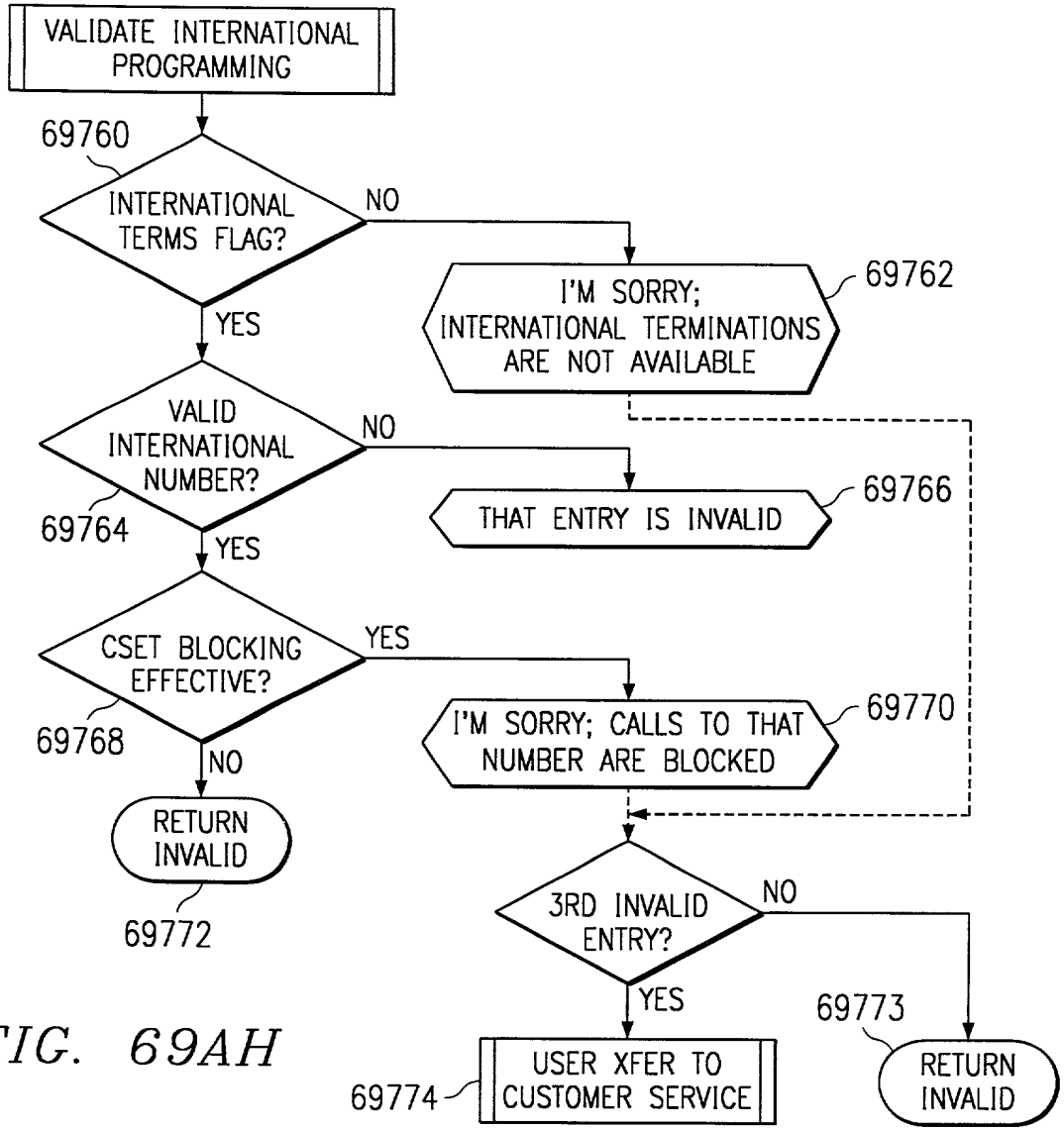


FIG. 69AH

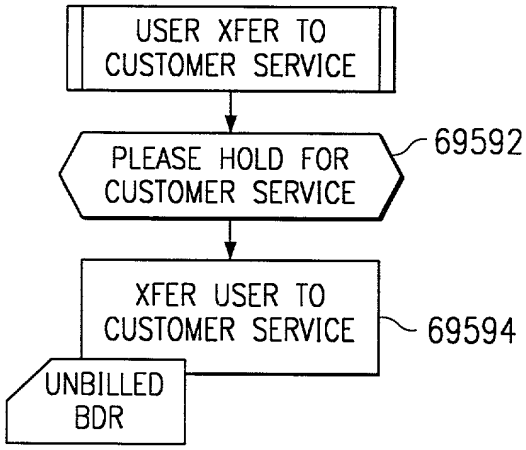


FIG. 69AI

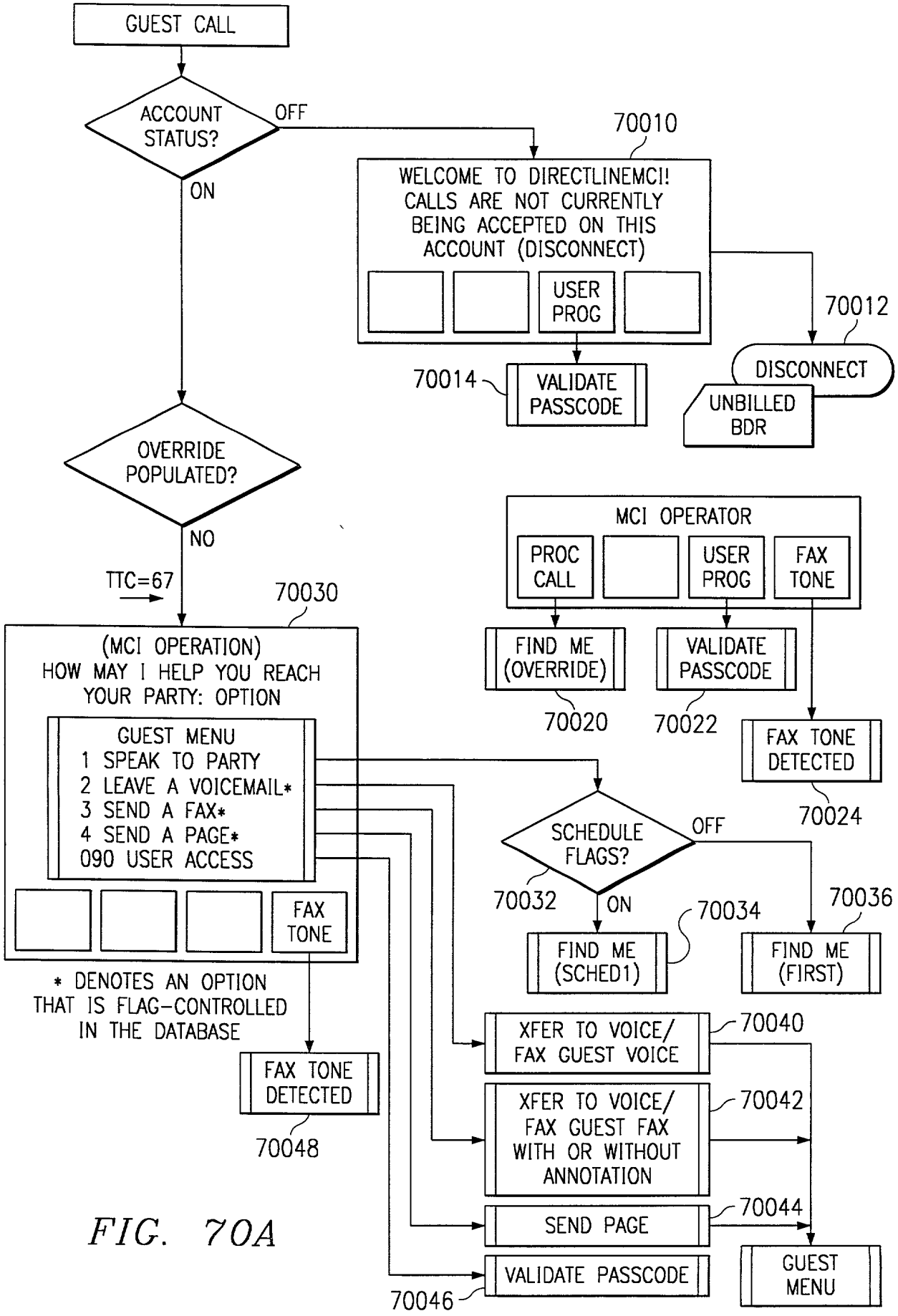

GUEST CALL
ACCOUNT STATUS?
OFF
ON
70010
WELCOME TO DIRECTLINEMCI! CALLS ARE NOT CURRENTLY BEING ACCEPTED ON THIS ACCOUNT (DISCONNECT)
USER PROG
70012
DISCONNECT
UNBILLED BDR
70014
VALIDATE PASSCODE
OVERRIDE POPULATED?
NO
TTC=67
70030
(MCI OPERATION) HOW MAY I HELP YOU REACH YOUR PARTY: OPTION
GUEST MENU
1 SPEAK TO PARTY
2 LEAVE A VOICEMAIL*
3 SEND A FAX*
4 SEND A PAGE*
090 USER ACCESS
FAX TONE
* DENOTES AN OPTION THAT IS FLAG-CONTROLLED IN THE DATABASE
FAX TONE DETECTED
70048
MCI OPERATOR
PROC CALL
USER PROG
FAX TONE
FIND ME (OVERRIDE)
70020
VALIDATE PASSCODE
70022
FAX TONE DETECTED
70024
SCHEDULE FLAGS?
70032
OFF
ON
70034
FIND ME (SCHED1)
70036
FIND ME (FIRST)
XFER TO VOICE/ FAX GUEST VOICE
70040
XFER TO VOICE/ FAX GUEST FAX WITH OR WITHOUT ANNOTATION
70042
SEND PAGE
70044
GUEST MENU
VALIDATE PASSCODE
70046

FIG. 70A

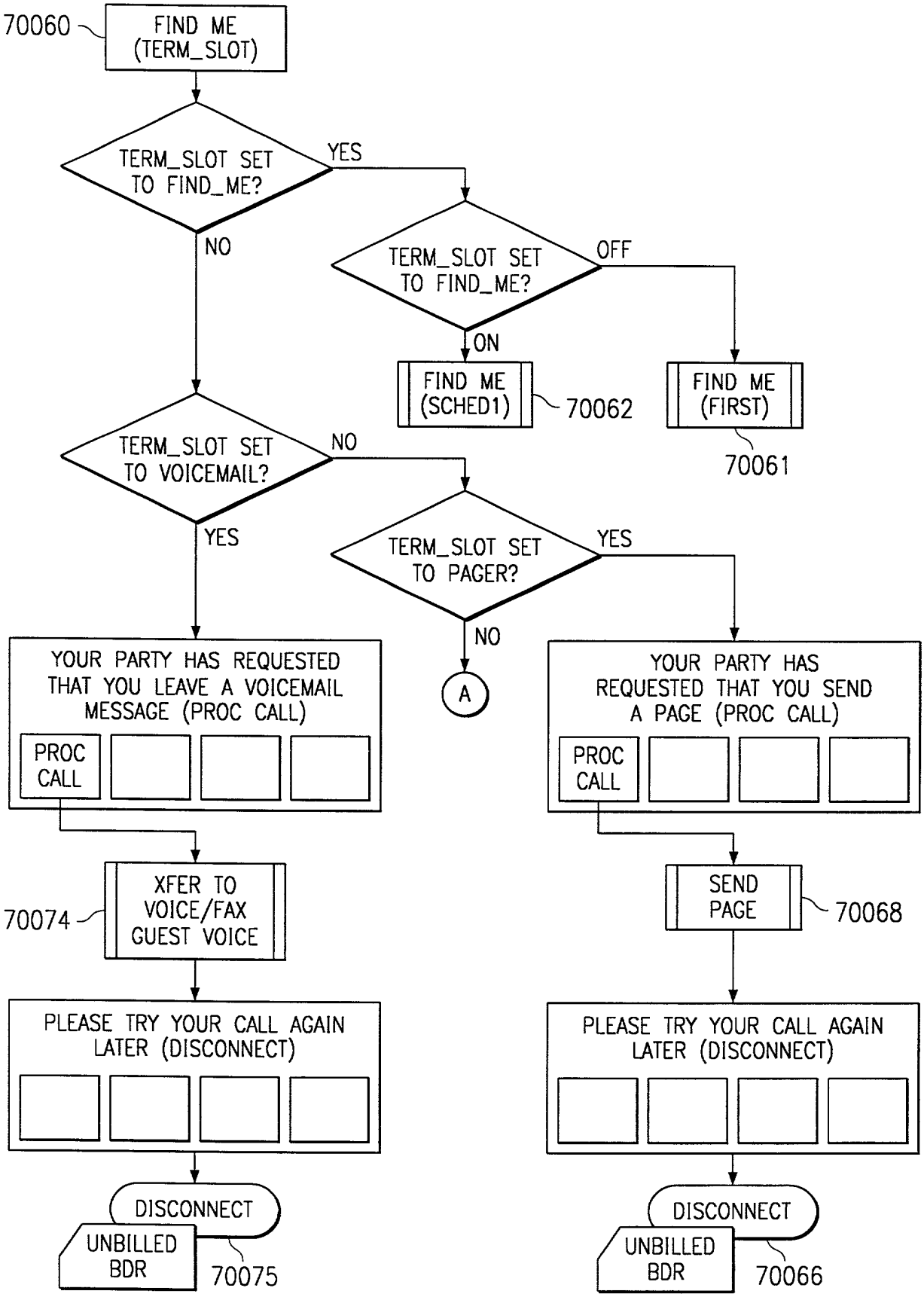
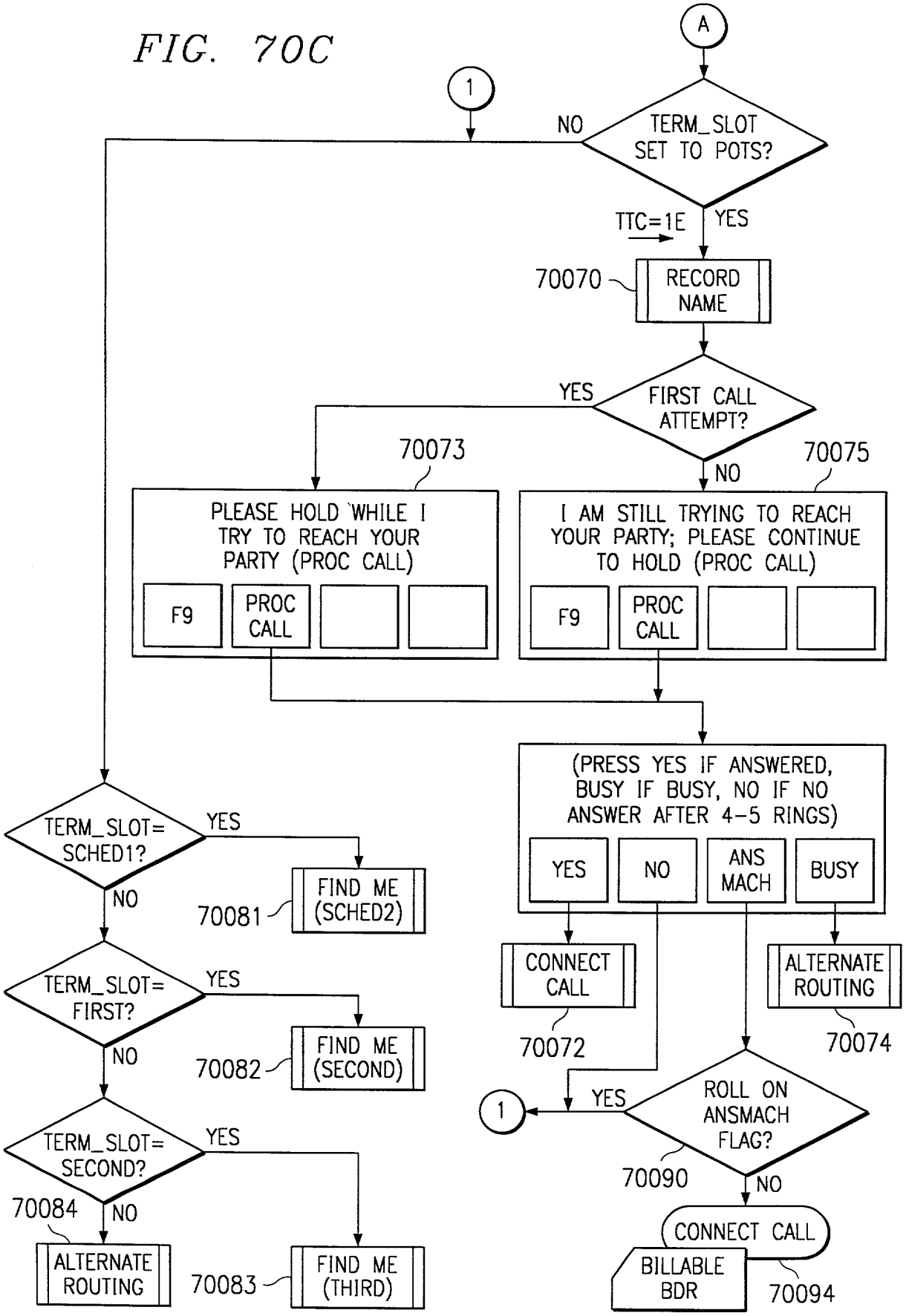

70060
FIND ME (TERM_SLOT)
TERM_SLOT SET TO FIND_ME?
YES
NO
TERM_SLOT SET TO FIND_ME?
OFF
ON
FIND ME (SCHED1)
70062
FIND ME (FIRST)
70061
TERM_SLOT SET TO VOICEMAIL?
NO
YES
TERM_SLOT SET TO PAGER?
YES
NO
A
YOUR PARTY HAS REQUESTED THAT YOU LEAVE A VOICEMAIL MESSAGE (PROC CALL)
PROC CALL
YOUR PARTY HAS REQUESTED THAT YOU SEND A PAGE (PROC CALL)
PROC CALL
70074
XFER TO VOICE/FAX GUEST VOICE
SEND PAGE
70068
PLEASE TRY YOUR CALL AGAIN LATER (DISCONNECT)
PLEASE TRY YOUR CALL AGAIN LATER (DISCONNECT)
DISCONNECT
UNBILLED BDR
70075
DISCONNECT
UNBILLED BDR
70066

FIG. 70B

FIG. 70C


A
1
NO
TERM_SLOT SET TO POTS?
YES
TTC=1E
70070
RECORD NAME
YES
FIRST CALL ATTEMPT?
NO
70073
PLEASE HOLD WHILE I TRY TO REACH YOUR PARTY (PROC CALL)
F9
PROC CALL
70075
I AM STILL TRYING TO REACH YOUR PARTY; PLEASE CONTINUE TO HOLD (PROC CALL)
F9
PROC CALL
(PRESS YES IF ANSWERED, BUSY IF BUSY, NO IF NO ANSWER AFTER 4-5 RINGS)
YES
NO
ANS MACH
BUSY
CONNECT CALL
70072
ALTERNATE ROUTING
70074
1
YES
ROLL ON ANSMACH FLAG?
70090
NO
CONNECT CALL
BILLABLE BDR
70094
TERM_SLOT= SCHED1?
YES
70081
FIND ME (SCHED2)
NO
TERM_SLOT= FIRST?
YES
70082
FIND ME (SECOND)
NO
TERM_SLOT= SECOND?
YES
70084
NO
ALTERNATE ROUTING
70083
FIND ME (THIRD)

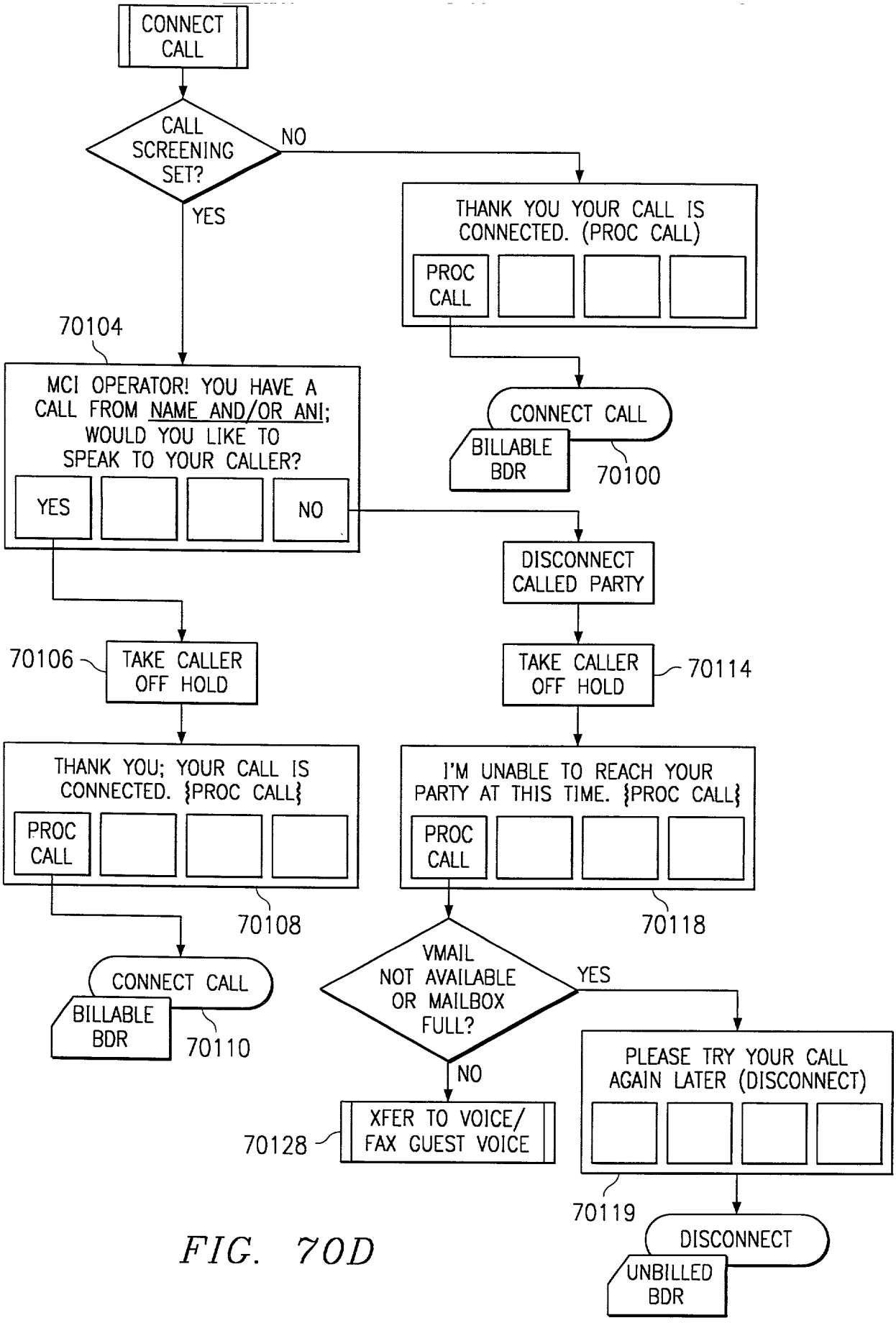

CONNECT CALL
CALL SCREENING SET?
NO
YES
THANK YOU YOUR CALL IS CONNECTED. (PROC CALL)
PROC CALL
70104
MCI OPERATOR! YOU HAVE A CALL FROM NAME AND/OR ANI; WOULD YOU LIKE TO SPEAK TO YOUR CALLER?
YES
NO
CONNECT CALL
BILLABLE BDR
70100
DISCONNECT CALLED PARTY
70106
TAKE CALLER OFF HOLD
TAKE CALLER OFF HOLD
70114
THANK YOU; YOUR CALL IS CONNECTED. {PROC CALL}
PROC CALL
70108
I'M UNABLE TO REACH YOUR PARTY AT THIS TIME. {PROC CALL}
PROC CALL
70118
CONNECT CALL
BILLABLE BDR
70110
VMAIL NOT AVAILABLE OR MAILBOX FULL?
YES
NO
PLEASE TRY YOUR CALL AGAIN LATER (DISCONNECT)
70128
XFER TO VOICE/ FAX GUEST VOICE
70119
DISCONNECT
UNBILLED BDR

FIG. 70D

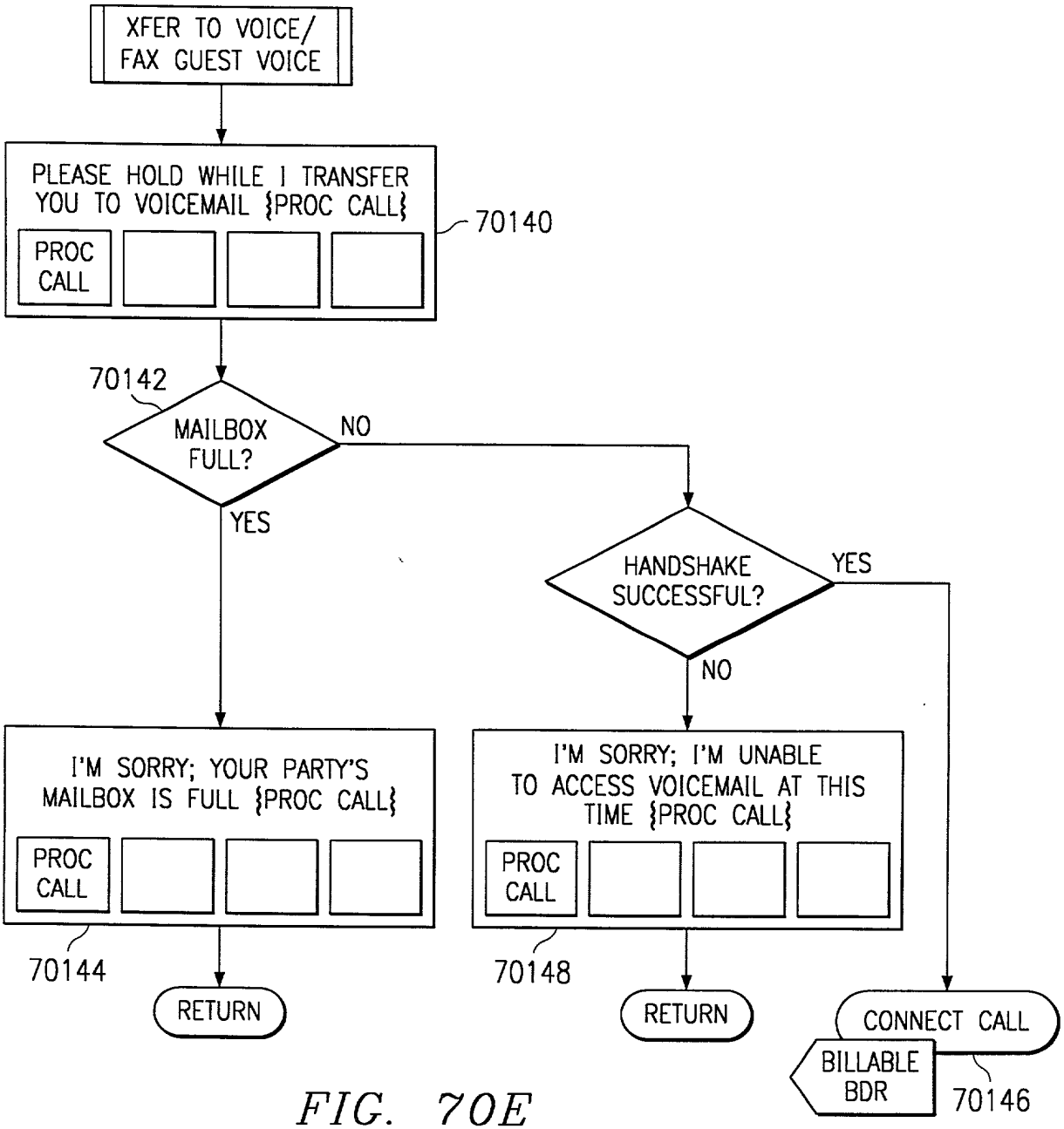

XFER TO VOICE/ FAX GUEST VOICE
PLEASE HOLD WHILE I TRANSFER YOU TO VOICEMAIL {PROC CALL}
PROC CALL
70140
70142
MAILBOX FULL?
NO
YES
HANDSHAKE SUCCESSFUL?
YES
NO
I'M SORRY; YOUR PARTY'S MAILBOX IS FULL {PROC CALL}
PROC CALL
70144
RETURN
I'M SORRY; I'M UNABLE TO ACCESS VOICEMAIL AT THIS TIME {PROC CALL}
PROC CALL
70148
RETURN
CONNECT CALL
BILLABLE BDR
70146

FIG. 70E

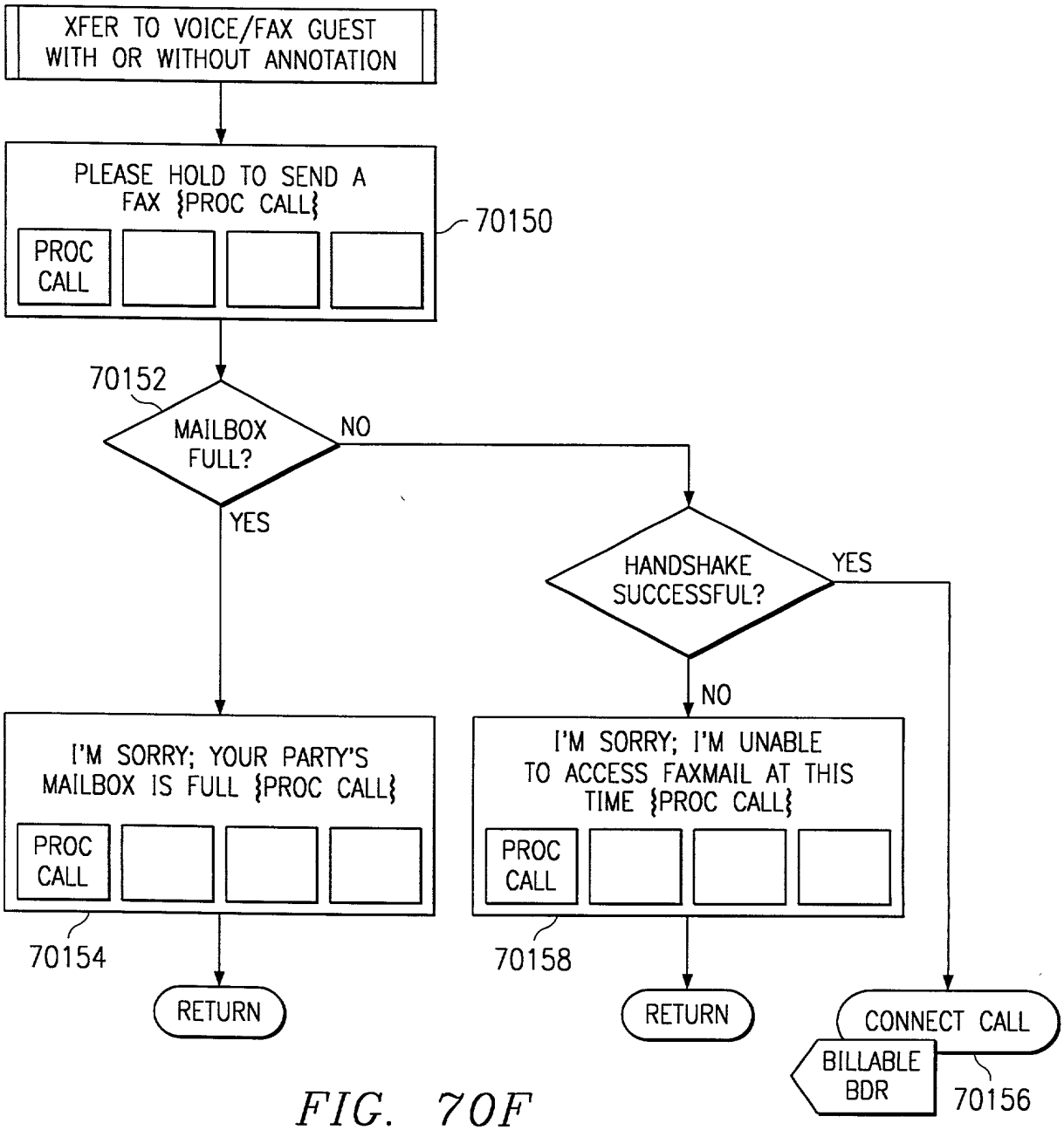

XFER TO VOICE/FAX GUEST WITH OR WITHOUT ANNOTATION
PLEASE HOLD TO SEND A FAX {PROC CALL}
PROC CALL
70150
70152
MAILBOX FULL?
NO
YES
HANDSHAKE SUCCESSFUL?
YES
NO
I'M SORRY; YOUR PARTY'S MAILBOX IS FULL {PROC CALL}
PROC CALL
70154
RETURN
I'M SORRY; I'M UNABLE TO ACCESS FAXMAIL AT THIS TIME {PROC CALL}
PROC CALL
70158
RETURN
CONNECT CALL
BILLABLE BDR
70156

FIG. 70F

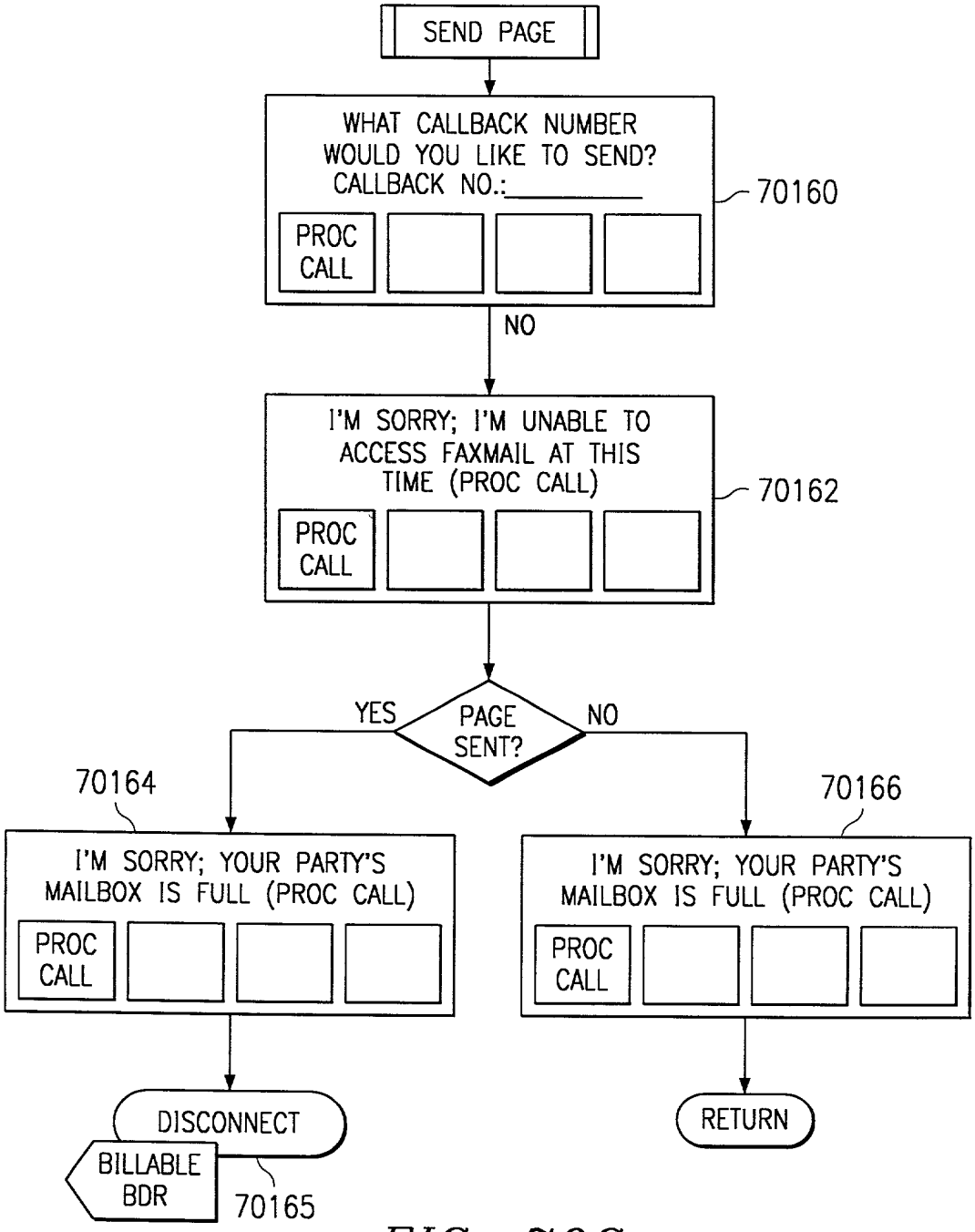

SEND PAGE
WHAT CALLBACK NUMBER WOULD YOU LIKE TO SEND? CALLBACK NO.:_____
70160
PROC CALL
NO
I'M SORRY; I'M UNABLE TO ACCESS FAXMAIL AT THIS TIME (PROC CALL)
70162
PROC CALL
YES
PAGE SENT?
NO
70164
70166
I'M SORRY; YOUR PARTY'S MAILBOX IS FULL (PROC CALL)
PROC CALL
I'M SORRY; YOUR PARTY'S MAILBOX IS FULL (PROC CALL)
PROC CALL
DISCONNECT
BILLABLE BDR
70165
RETURN

FIG. 70G

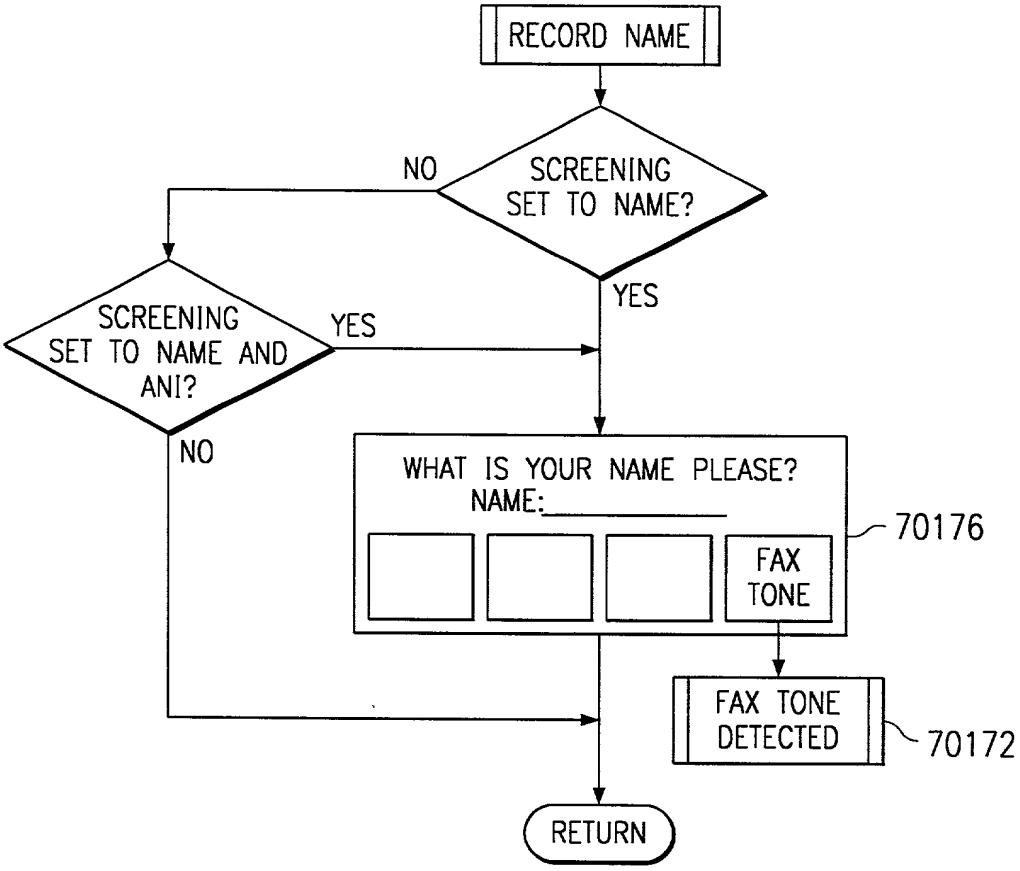


FIG. 70H

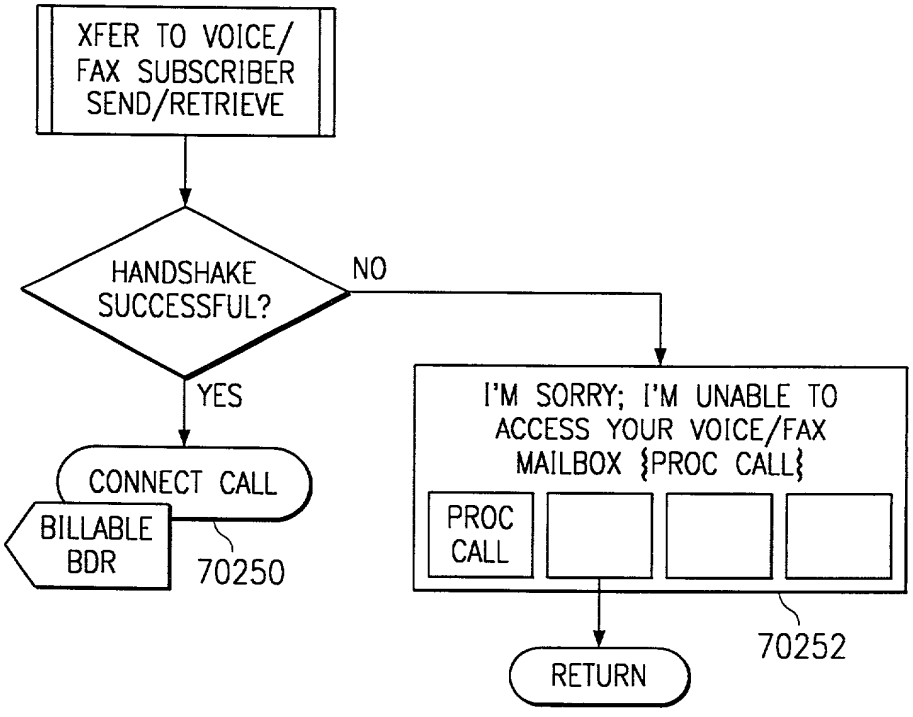


FIG. 70M

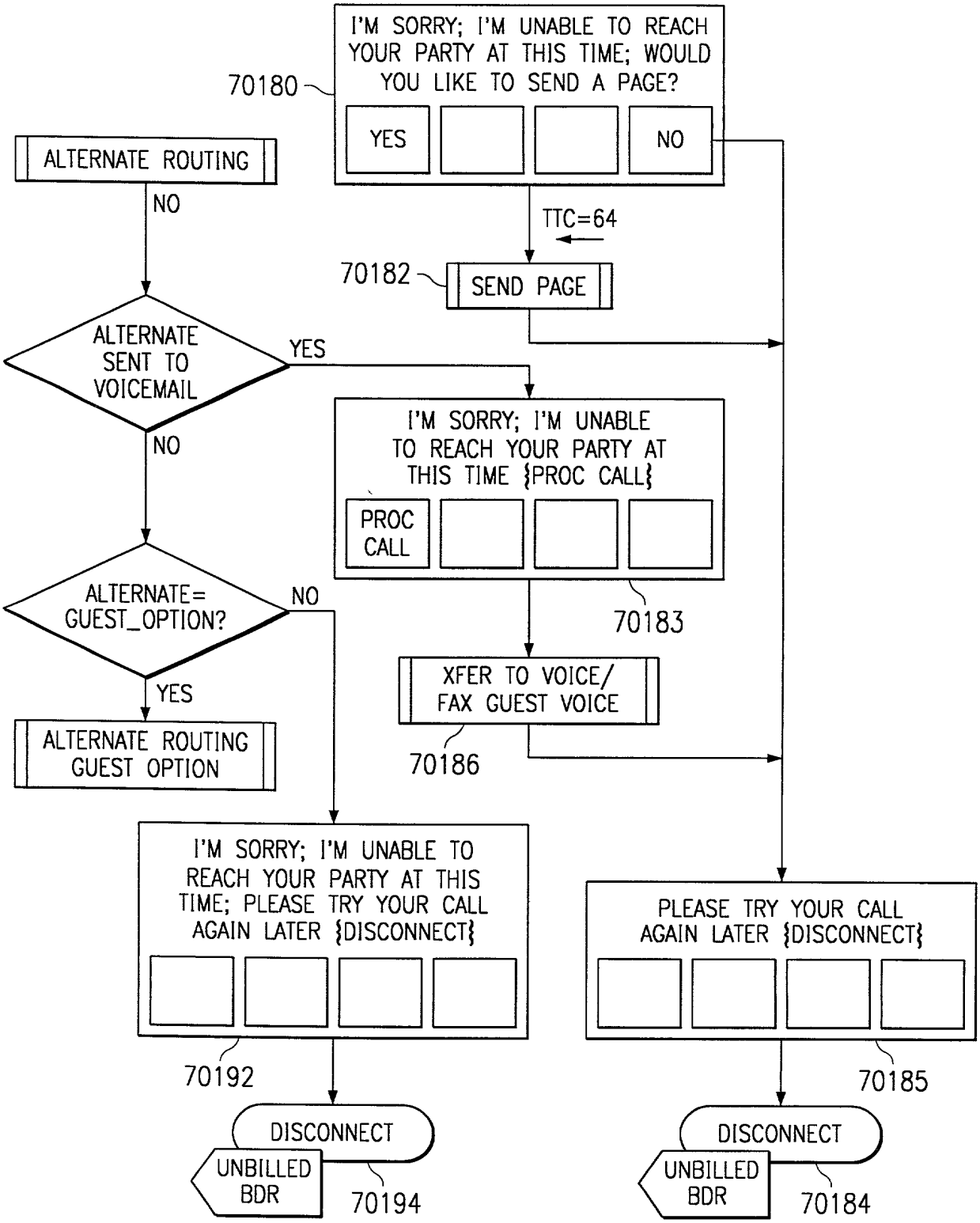

I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME; WOULD YOU LIKE TO SEND A PAGE?
70180
YES
NO
ALTERNATE ROUTING
NO
TTC=64
70182
SEND PAGE
ALTERNATE SENT TO VOICEMAIL
YES
NO
I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME {PROC CALL}
PROC CALL
70183
ALTERNATE= GUEST_OPTION?
NO
YES
XFER TO VOICE/ FAX GUEST VOICE
70186
ALTERNATE ROUTING GUEST OPTION
I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME; PLEASE TRY YOUR CALL AGAIN LATER {DISCONNECT}
PLEASE TRY YOUR CALL AGAIN LATER {DISCONNECT}
70192
70185
DISCONNECT
UNBILLED BDR
70194
DISCONNECT
UNBILLED BDR
70184

FIG. 701

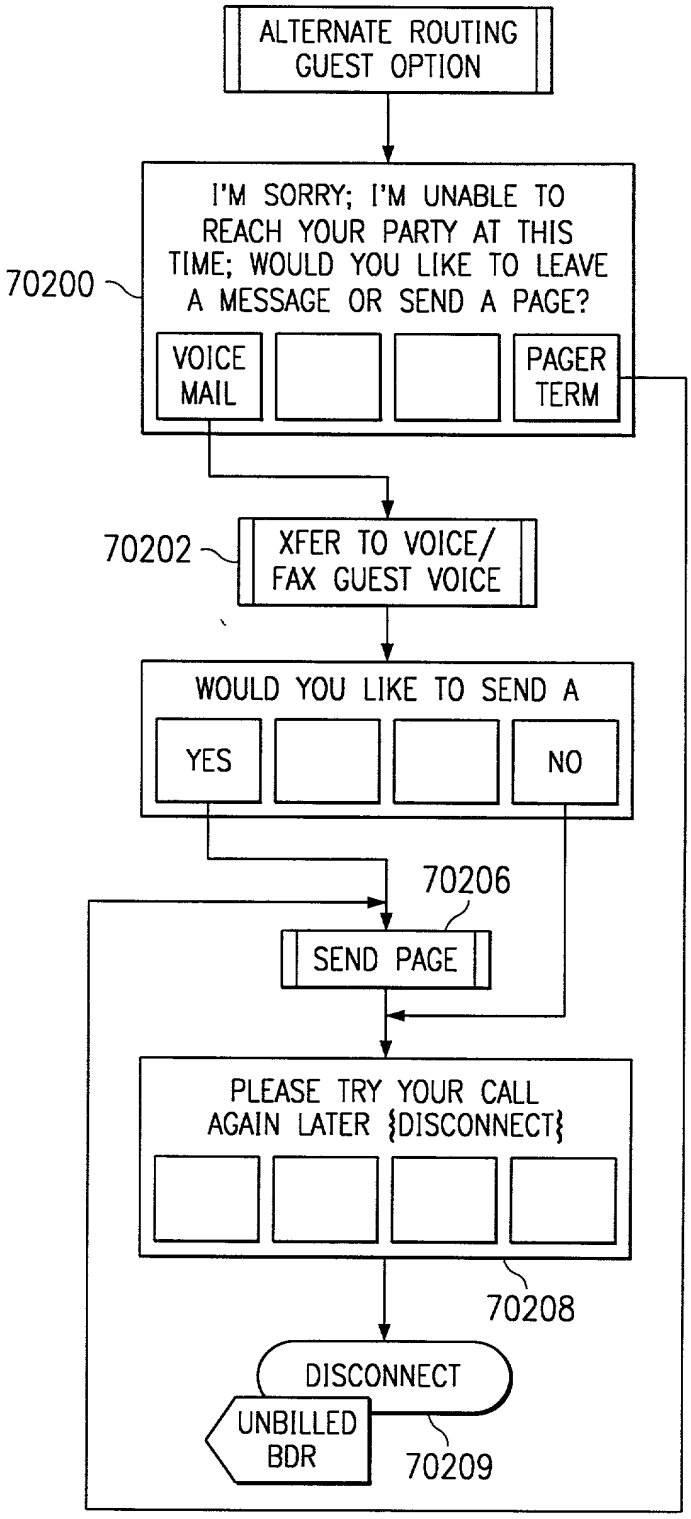

ALTERNATE ROUTING GUEST OPTION
I'M SORRY; I'M UNABLE TO REACH YOUR PARTY AT THIS TIME; WOULD YOU LIKE TO LEAVE A MESSAGE OR SEND A PAGE?
70200
VOICE MAIL
PAGER TERM
70202
XFER TO VOICE/ FAX GUEST VOICE
WOULD YOU LIKE TO SEND A
YES
NO
70206
SEND PAGE
PLEASE TRY YOUR CALL AGAIN LATER {DISCONNECT}
70208
DISCONNECT
UNBILLED BDR
70209

FIG. 70J

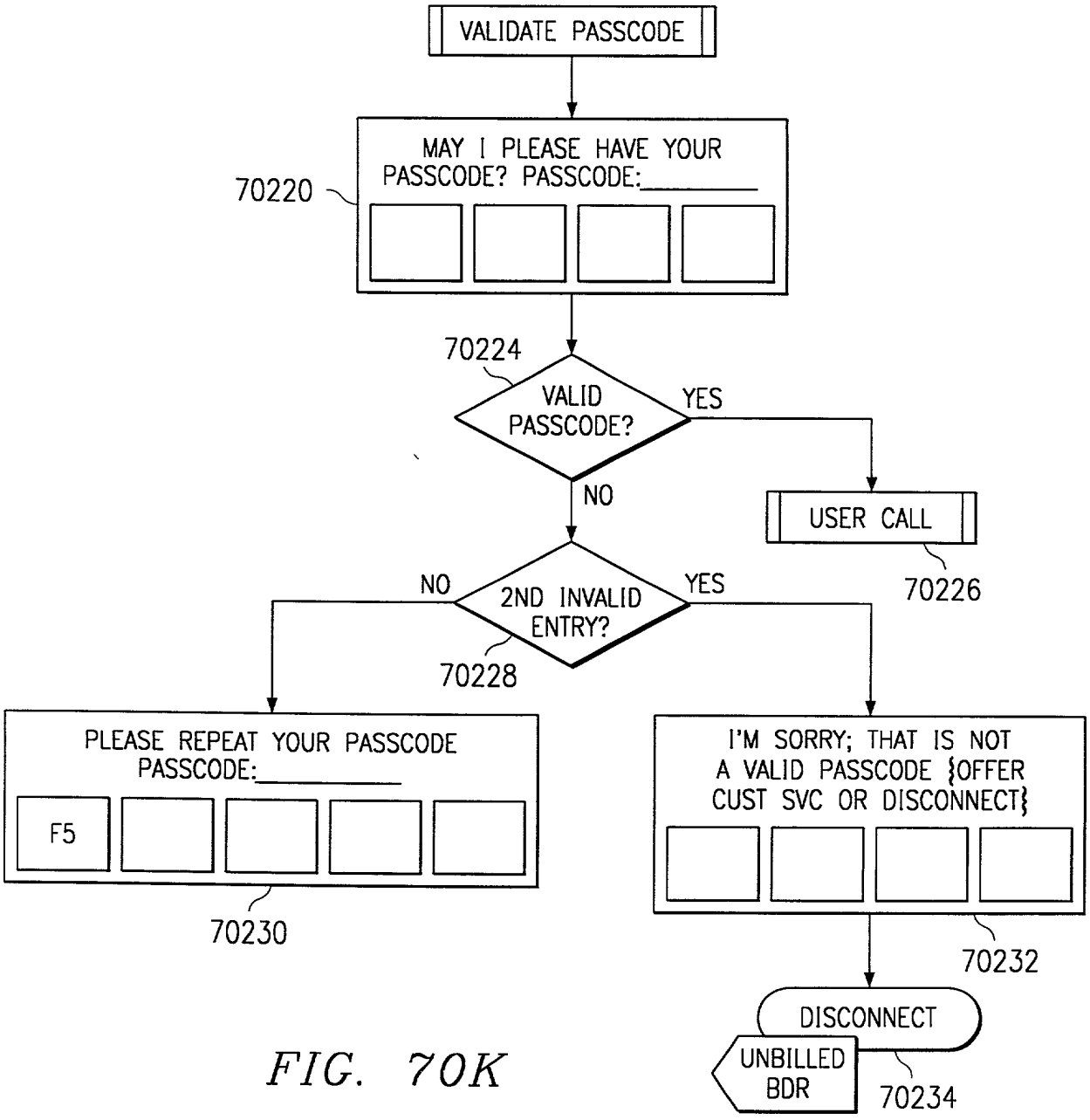

VALIDATE PASSCODE
MAY I PLEASE HAVE YOUR PASSCODE? PASSCODE:_____
70220
70224
VALID PASSCODE?
YES
NO
USER CALL
70226
NO
2ND INVALID ENTRY?
YES
70228
PLEASE REPEAT YOUR PASSCODE PASSCODE:_____
F5
70230
I'M SORRY; THAT IS NOT A VALID PASSCODE {OFFER CUST SVC OR DISCONNECT}
70232
DISCONNECT
UNBILLED BDR
70234

FIG. 70K

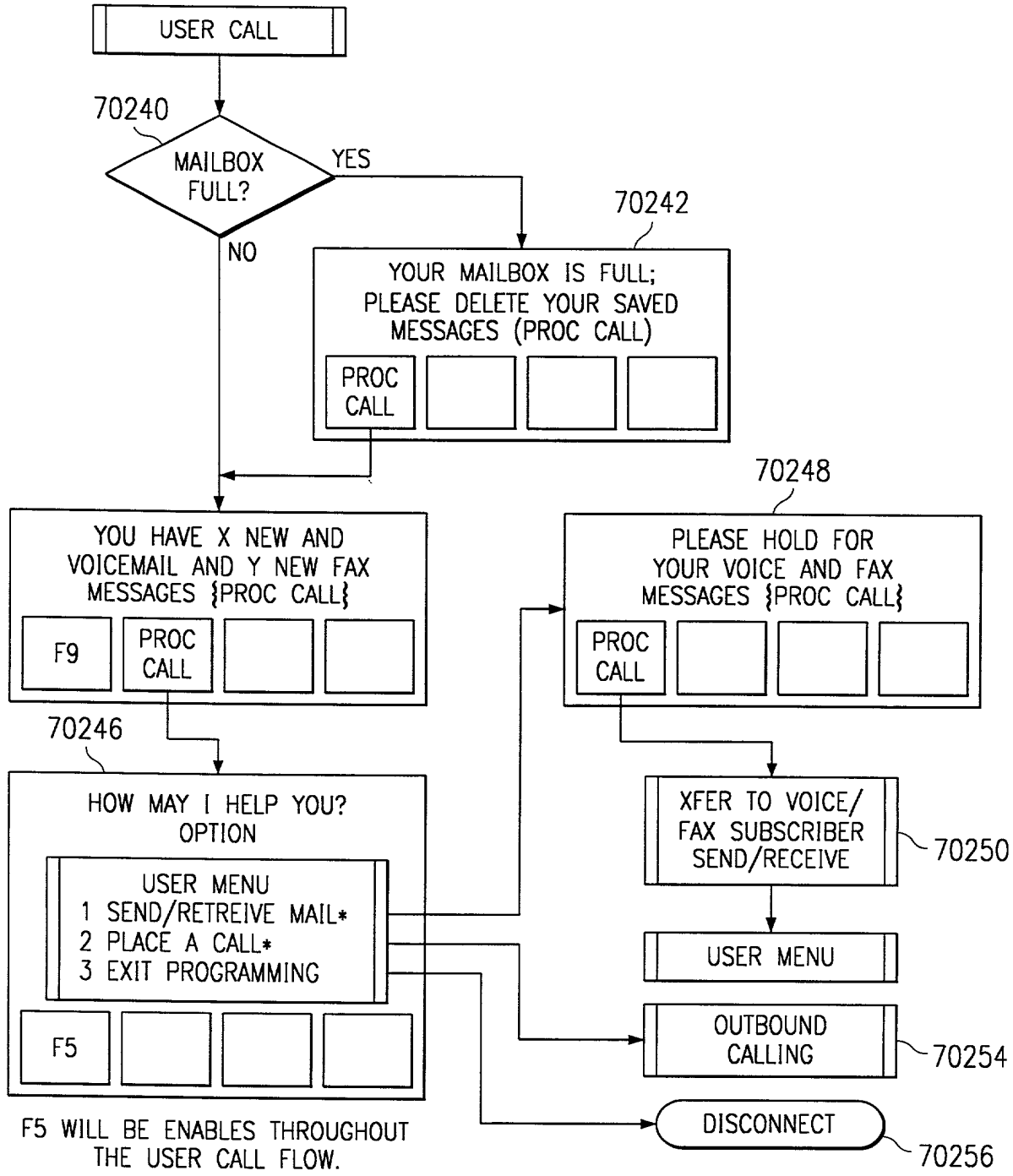

USER CALL
70240
MAILBOX FULL?
YES
NO
70242
YOUR MAILBOX IS FULL; PLEASE DELETE YOUR SAVED MESSAGES (PROC CALL)
PROC CALL
70248
PLEASE HOLD FOR YOUR VOICE AND FAX MESSAGES {PROC CALL}
PROC CALL
YOU HAVE X NEW AND VOICEMAIL AND Y NEW FAX MESSAGES {PROC CALL}
F9
PROC CALL
70246
HOW MAY I HELP YOU? OPTION
USER MENU
1 SEND/RETREIVE MAIL*
2 PLACE A CALL*
3 EXIT PROGRAMMING
F5
XFER TO VOICE/ FAX SUBSCRIBER SEND/RECEIVE
70250
USER MENU
OUTBOUND CALLING
70254
DISCONNECT
70256
F5 WILL BE ENABLES THROUGHOUT THE USER CALL FLOW.

FIG. 70L

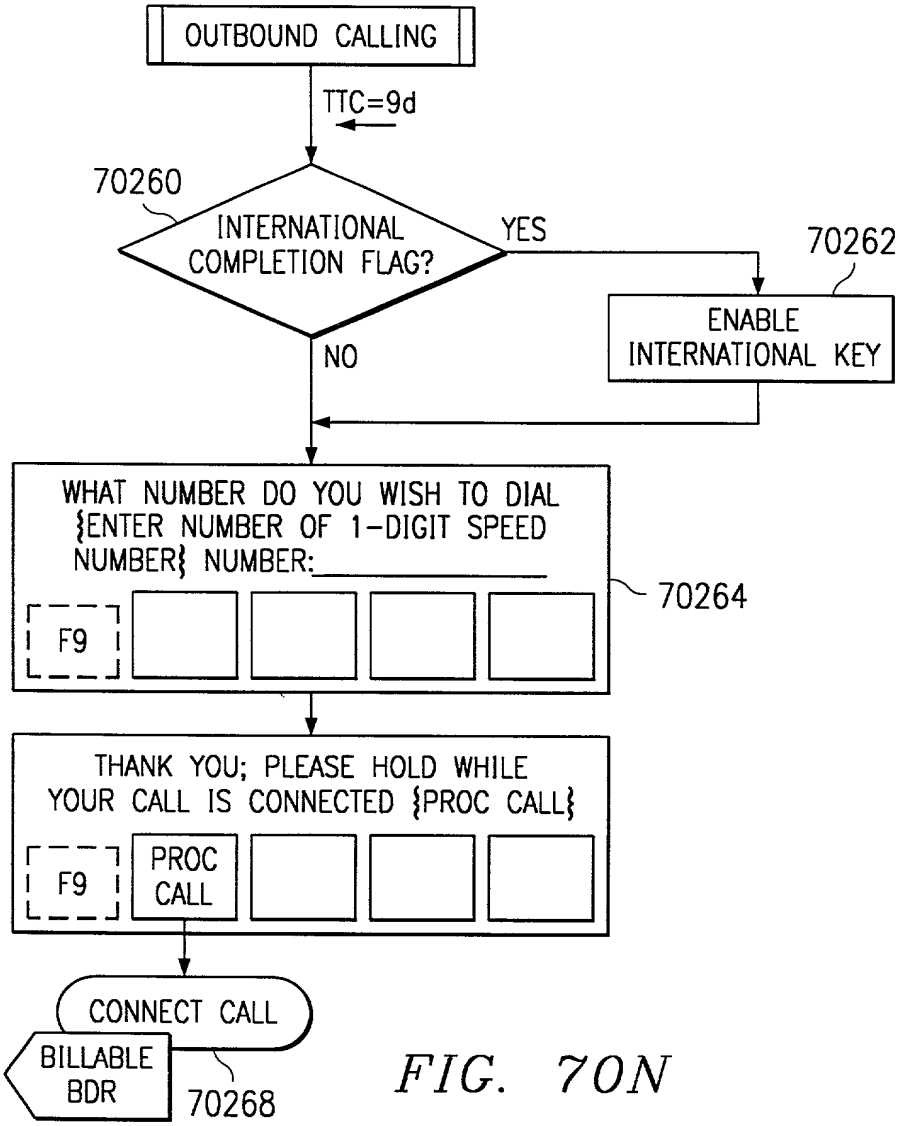


FIG. 70N

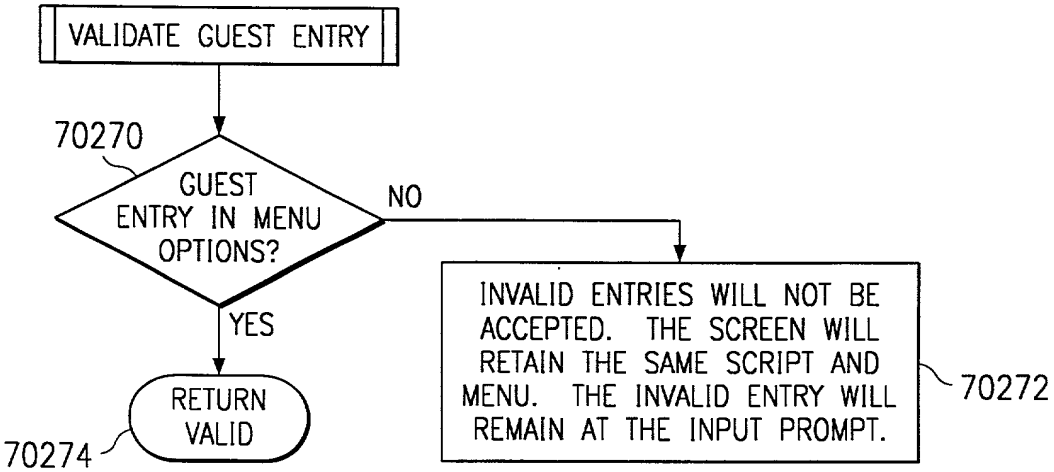


FIG. 700

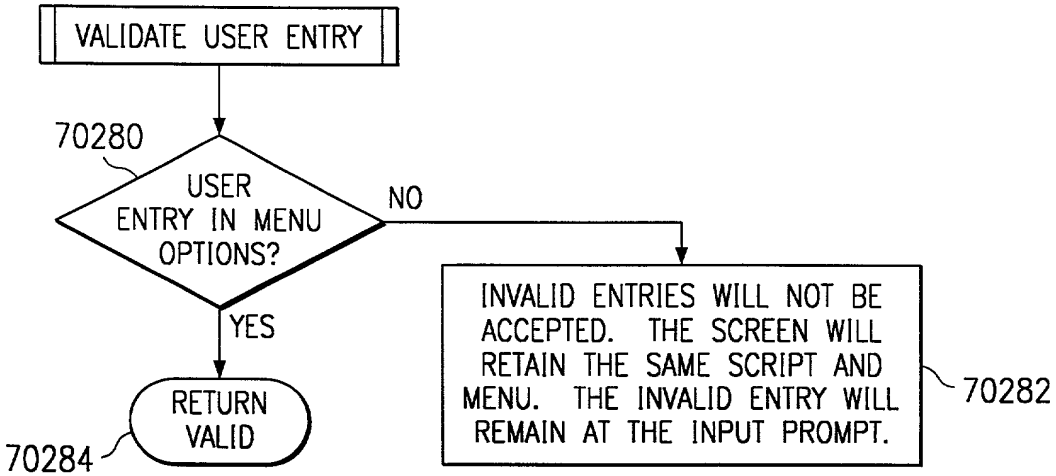


FIG. 70P

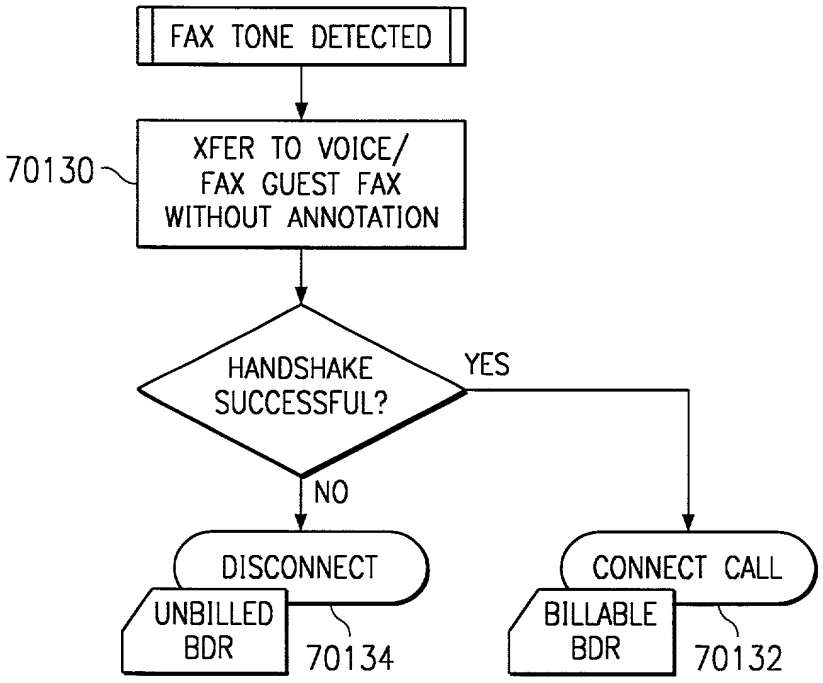


FIG. 70S

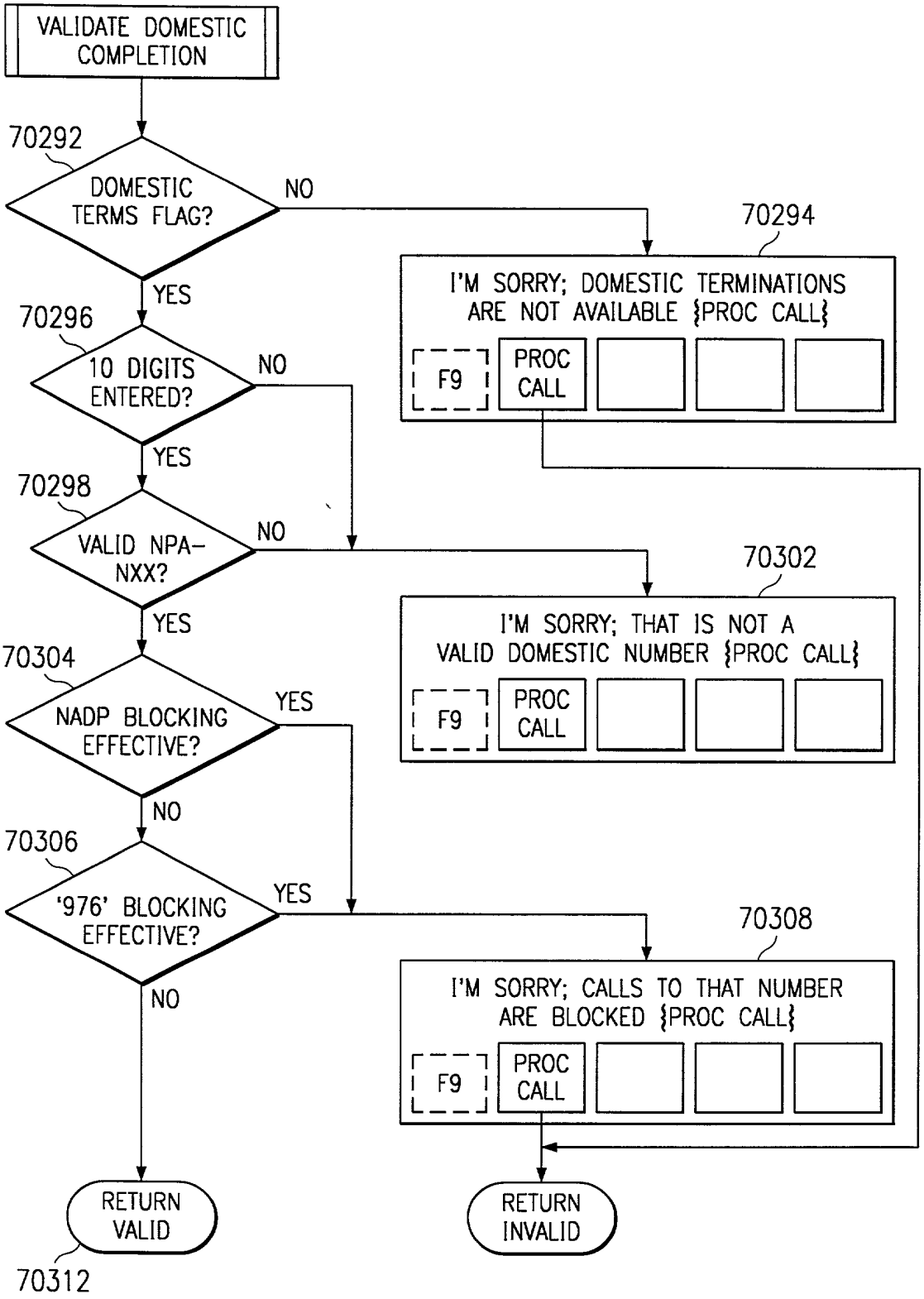

VALIDATE DOMESTIC COMPLETION
70292
DOMESTIC TERMS FLAG?
NO
YES
70294
I'M SORRY; DOMESTIC TERMINATIONS ARE NOT AVAILABLE {PROC CALL}
F9
PROC CALL
70296
10 DIGITS ENTERED?
NO
YES
70298
VALID NPA-NXX?
NO
YES
70302
I'M SORRY; THAT IS NOT A VALID DOMESTIC NUMBER {PROC CALL}
F9
PROC CALL
70304
NADP BLOCKING EFFECTIVE?
YES
NO
70306
'976' BLOCKING EFFECTIVE?
YES
NO
70308
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED {PROC CALL}
F9
PROC CALL
RETURN VALID
70312
RETURN INVALID

FIG. 70Q

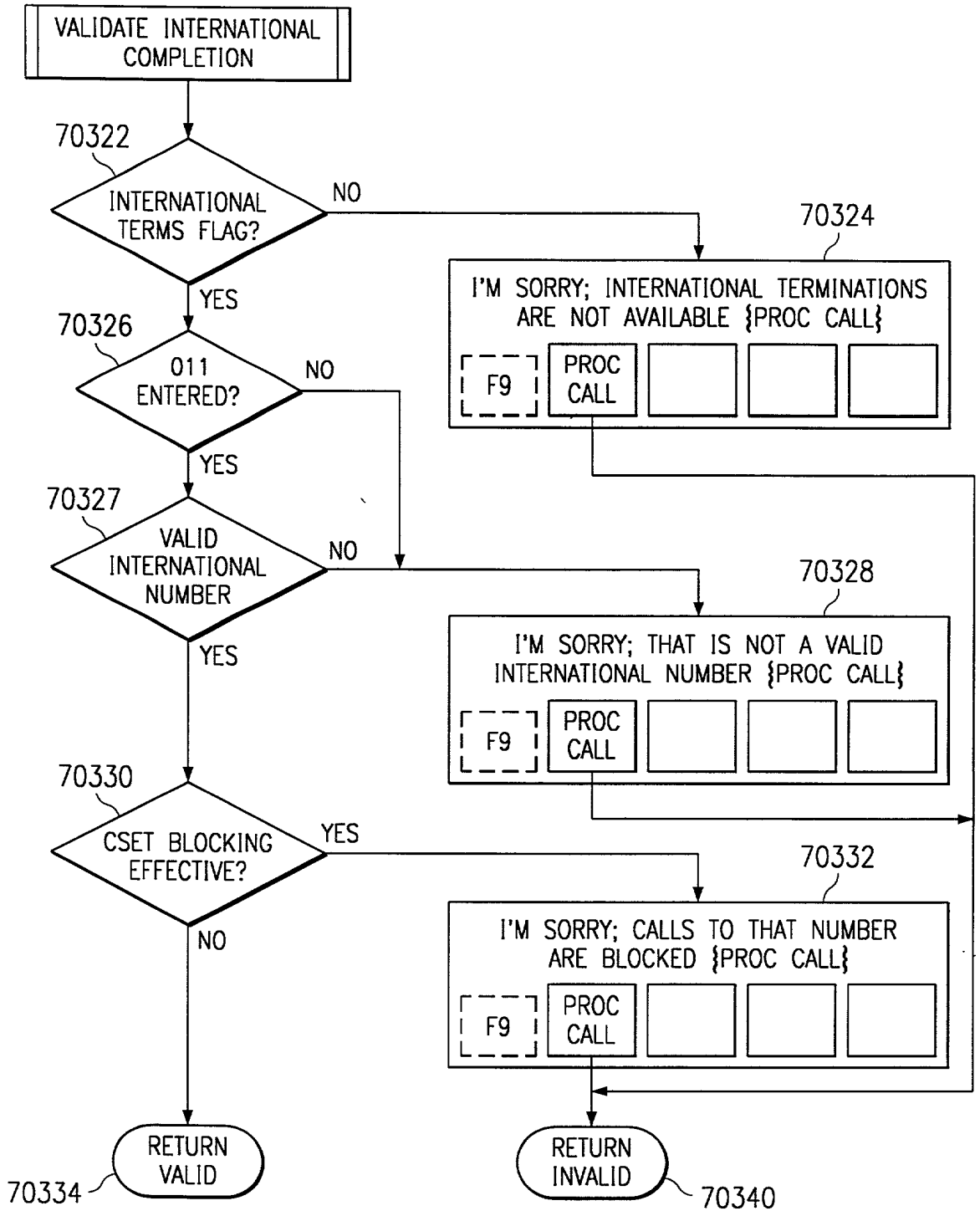

VALIDATE INTERNATIONAL COMPLETION
70322
INTERNATIONAL TERMS FLAG?
NO
YES
70324
I'M SORRY; INTERNATIONAL TERMINATIONS ARE NOT AVAILABLE {PROC CALL}
F9
PROC CALL
70326
011 ENTERED?
NO
YES
70327
VALID INTERNATIONAL NUMBER
NO
YES
70328
I'M SORRY; THAT IS NOT A VALID INTERNATIONAL NUMBER {PROC CALL}
F9
PROC CALL
70330
CSET BLOCKING EFFECTIVE?
YES
NO
70332
I'M SORRY; CALLS TO THAT NUMBER ARE BLOCKED {PROC CALL}
F9
PROC CALL
RETURN VALID
70334
RETURN INVALID
70340

FIG. 70R

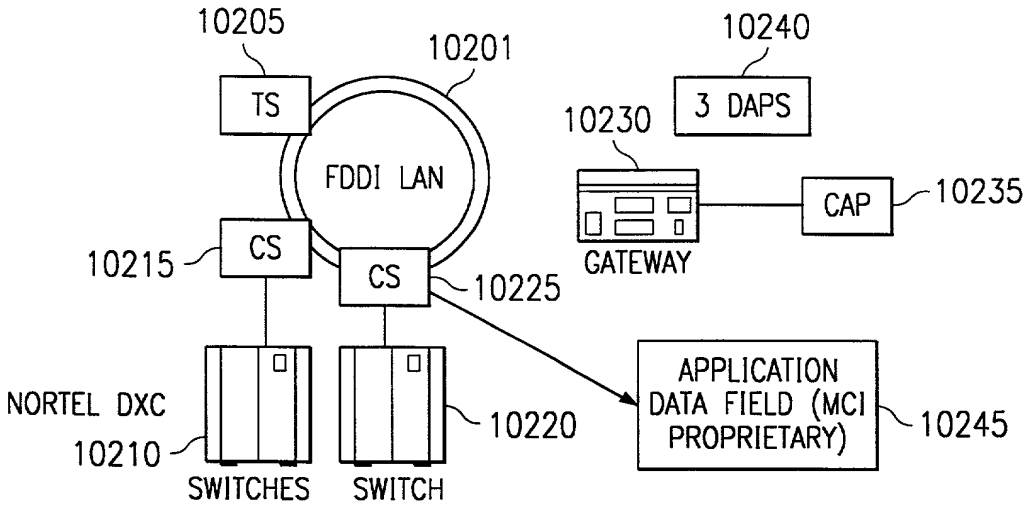

10205
10201
10240
TS
FDDI LAN
3 DAPS
10230
CAP
10235
GATEWAY
10215
CS
CS
10225
NORTEL DXC
10210
SWITCHES
SWITCH
10220
APPLICATION DATA FIELD (MCI PROPRIETARY)
10245

FIG. 71

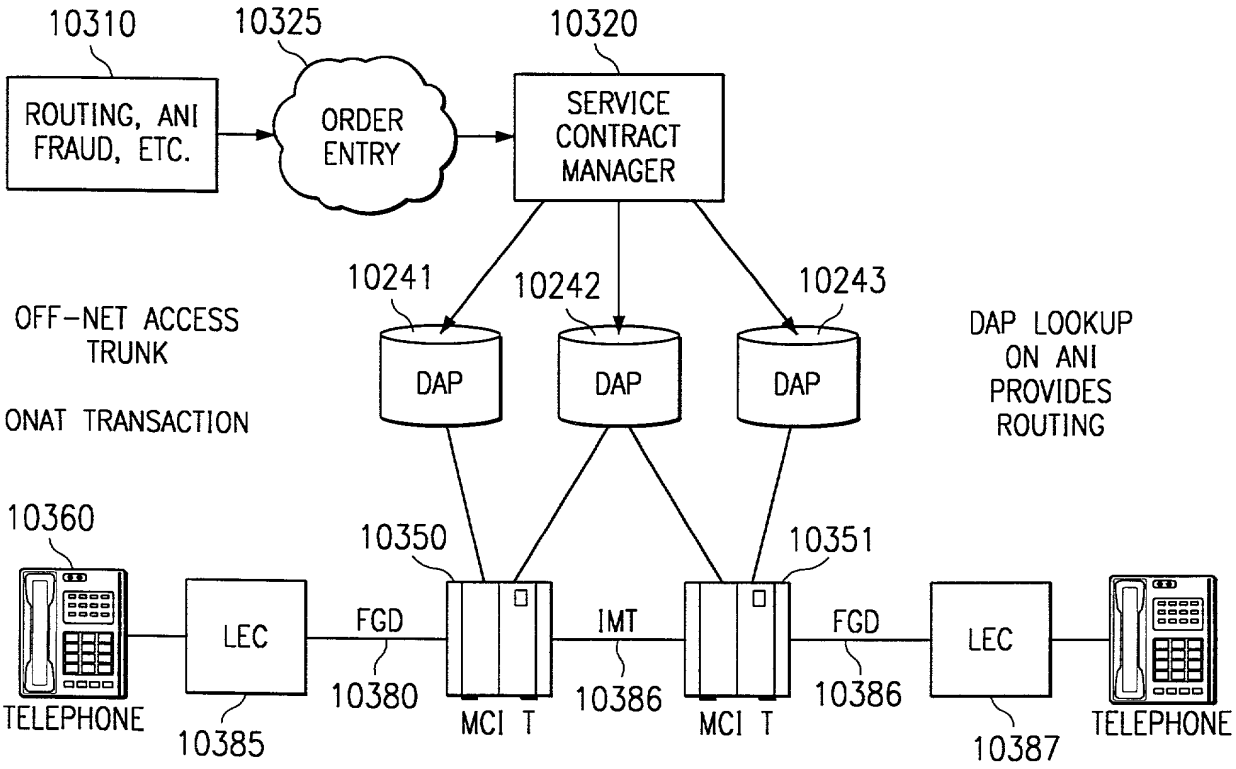

10310
10325
10320
ROUTING, ANI FRAUD, ETC.
ORDER ENTRY
SERVICE CONTRACT MANAGER
10241
10242
10243
OFF-NET ACCESS TRUNK
ONAT TRANSACTION
DAP
DAP
DAP
DAP LOOKUP ON ANI PROVIDES ROUTING
10360
10350
10351
LEC
FGD
IMT
FGD
LEC
TELEPHONE
10380
MCI T
10386
MCI T
10386
TELEPHONE
10385
10387

FIG. 72

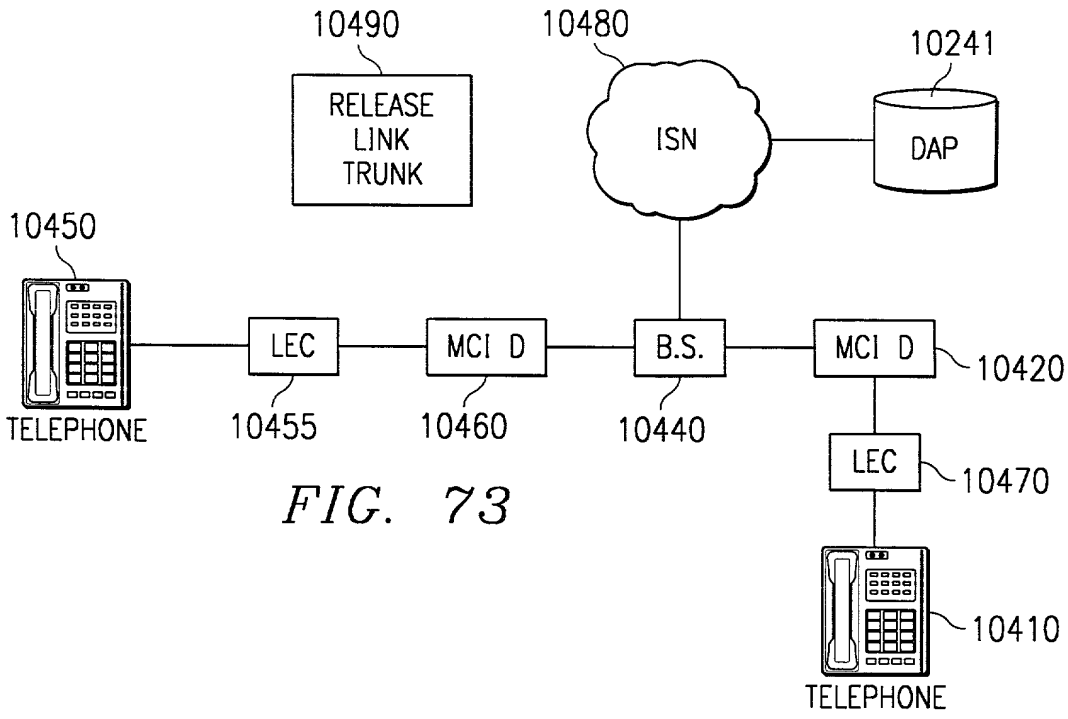

10490
RELEASE LINK TRUNK
10480
ISN
10241
DAP
10450
TELEPHONE
LEC
10455
MCI D
10460
B.S.
10440
MCI D
10420
LEC
10470
10410
TELEPHONE

FIG. 73

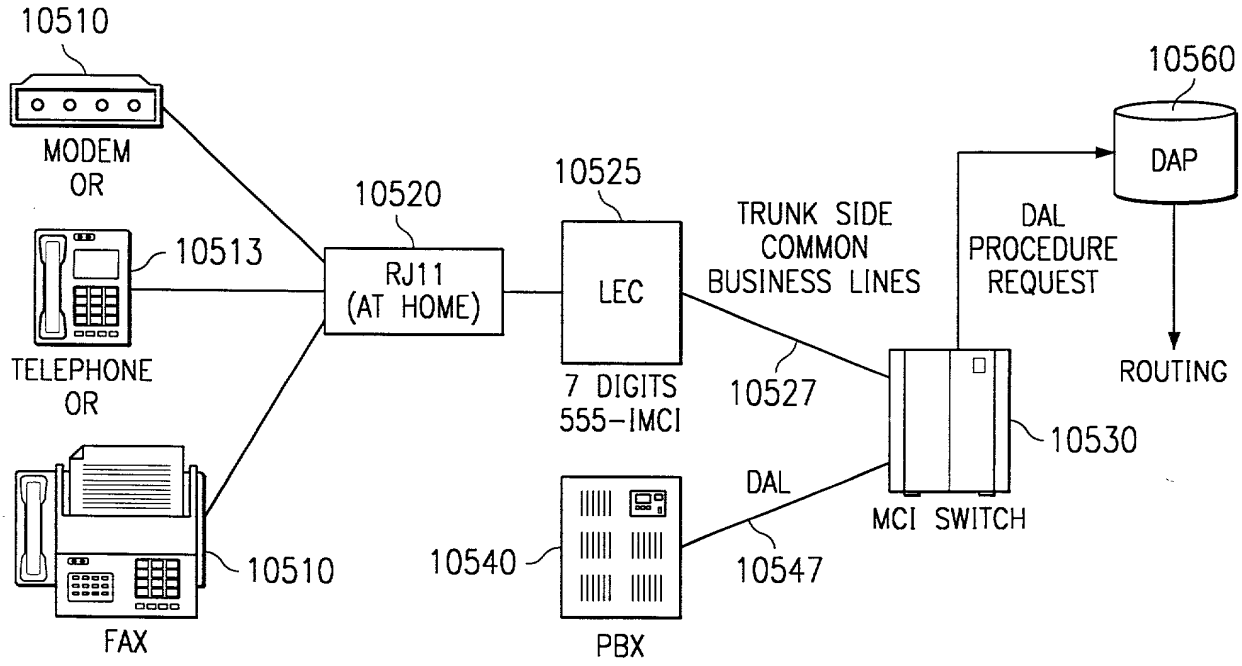

10510
MODEM OR
10513
TELEPHONE OR
10520
RJ11 (AT HOME)
10525
LEC
7 DIGITS 555-IMCI
TRUNK SIDE COMMON BUSINESS LINES
10527
10560
DAP
DAL PROCEDURE REQUEST
ROUTING
10530
MCI SWITCH
DAL
10547
10540
PBX
10510
FAX

FIG. 74

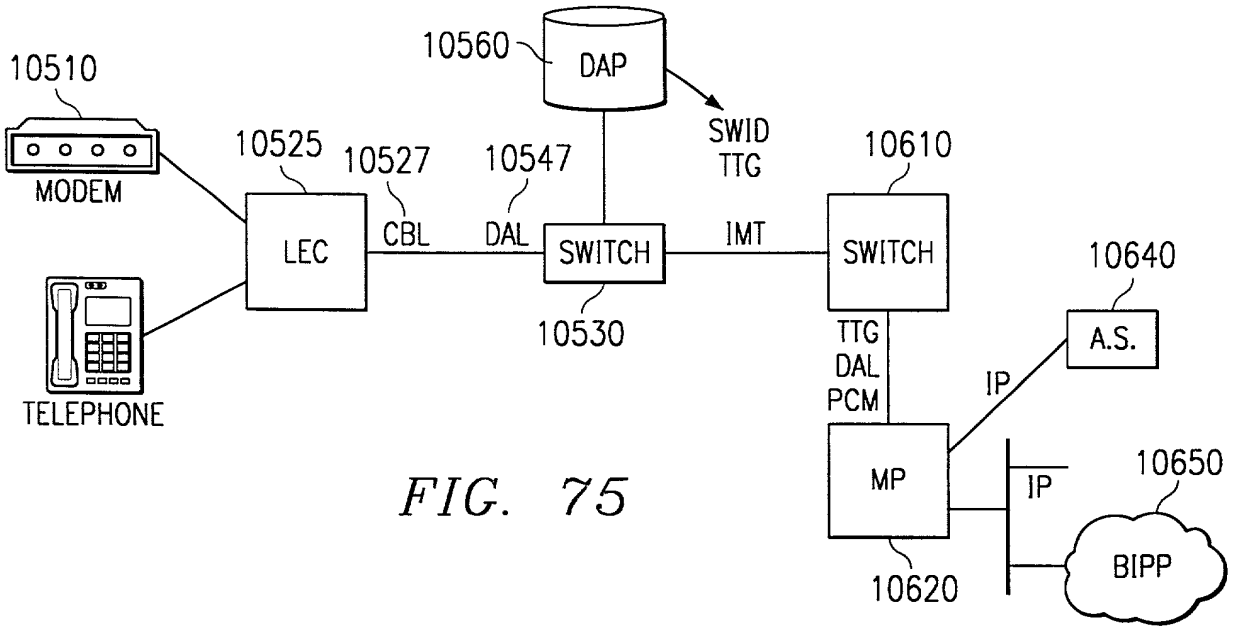


FIG. 75

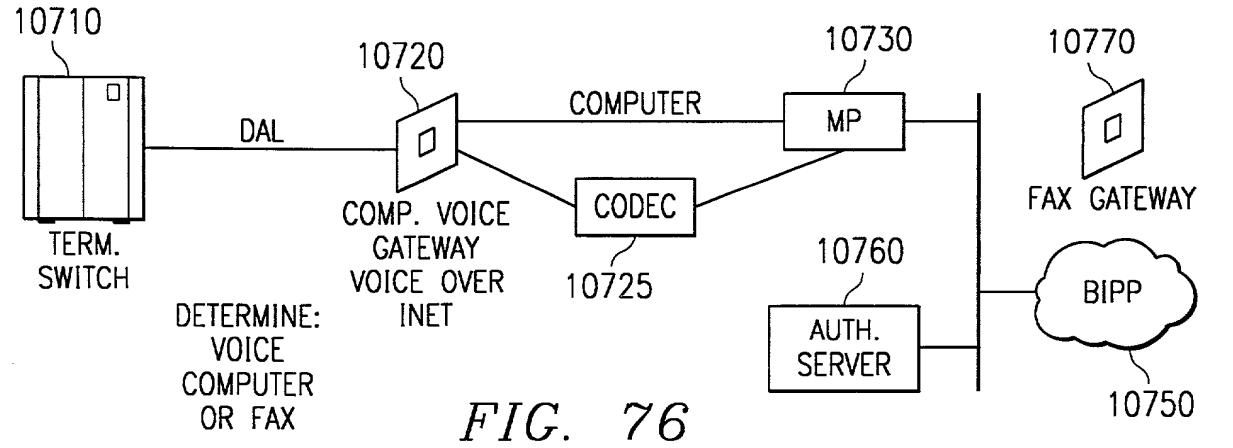


FIG. 76

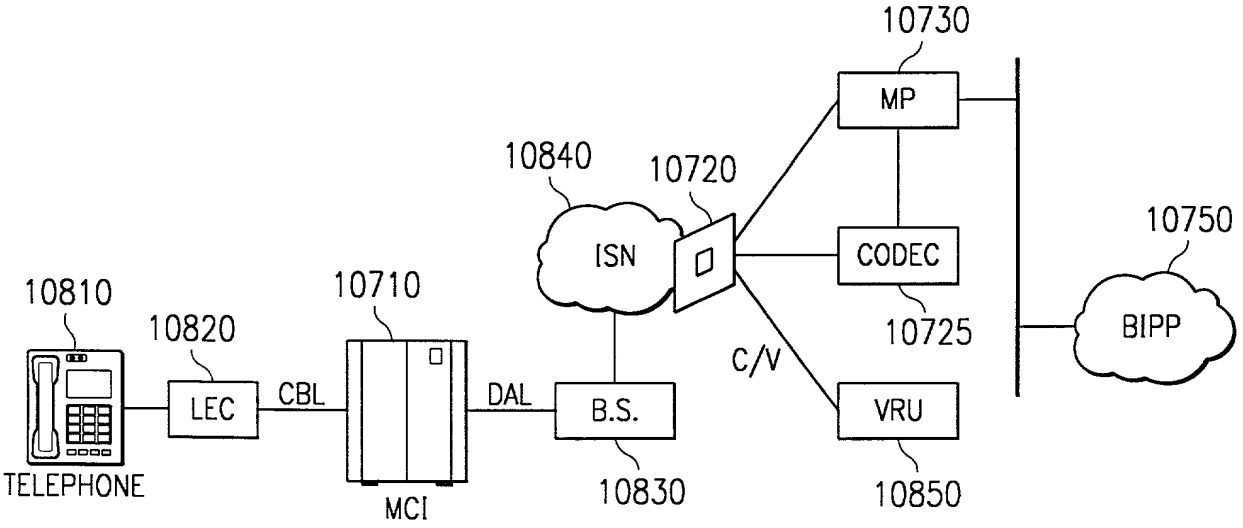


FIG. 77

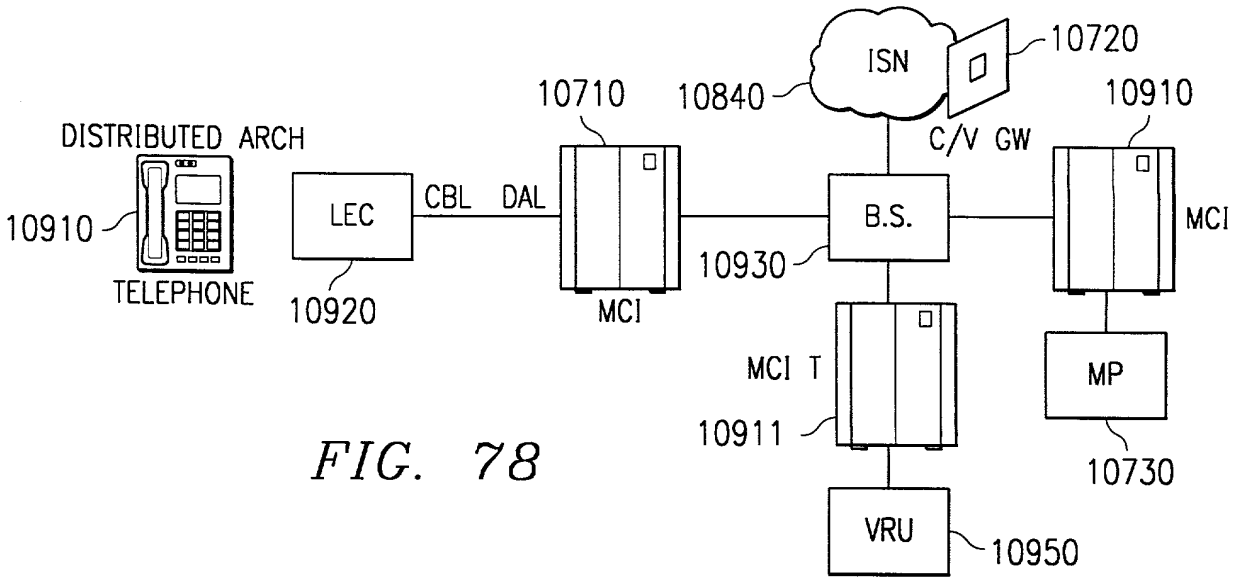


FIG. 78

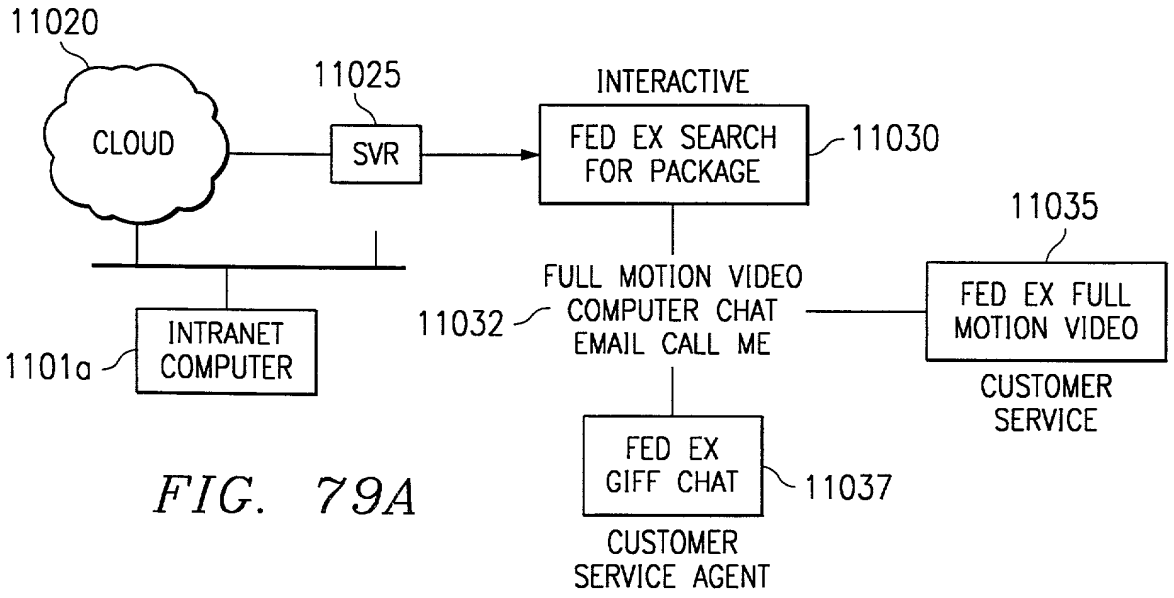


FIG. 79A

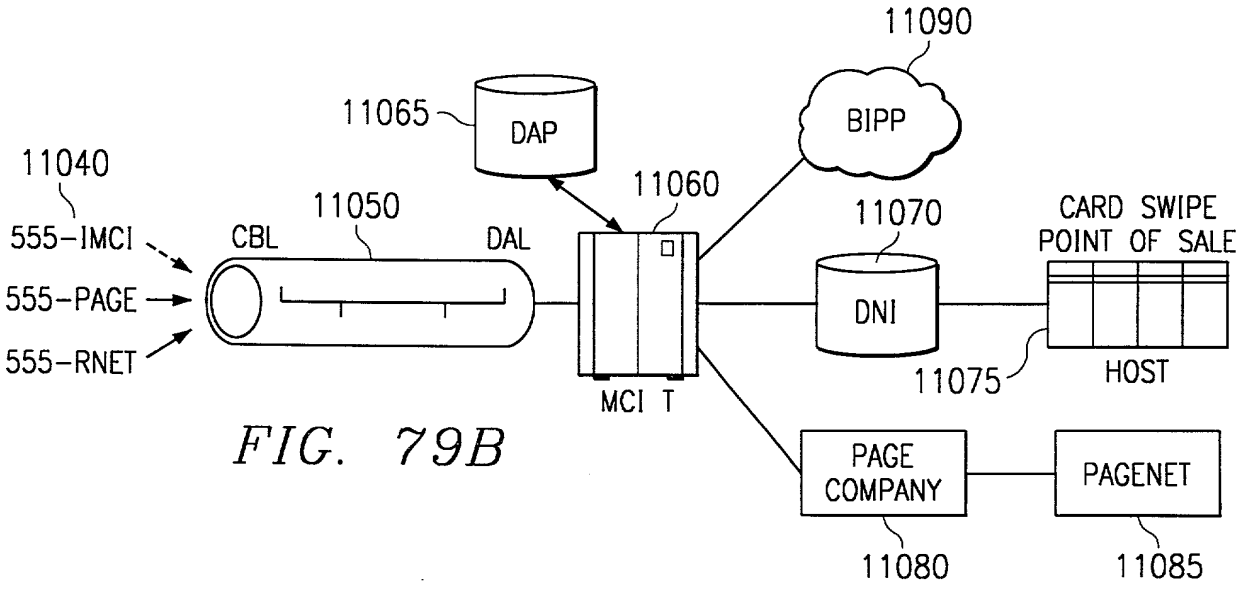


FIG. 79B

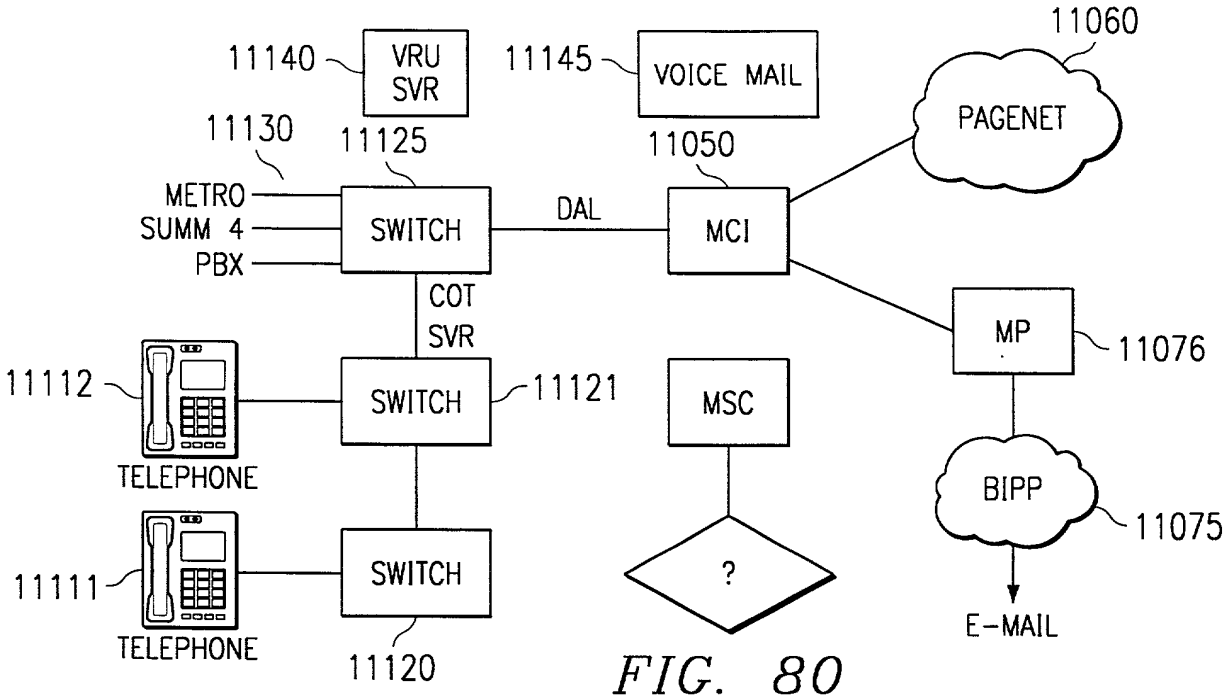

11140
VRU SVR
11145
VOICE MAIL
11060
PAGENET
11130
11125
11050
METRO
SUMM 4
PBX
SWITCH
DAL
MCI
COT SVR
MP
11076
11112
SWITCH
11121
MSC
TELEPHONE
BIPP
11075
11111
SWITCH
?
TELEPHONE
E-MAIL
11120

FIG. 80

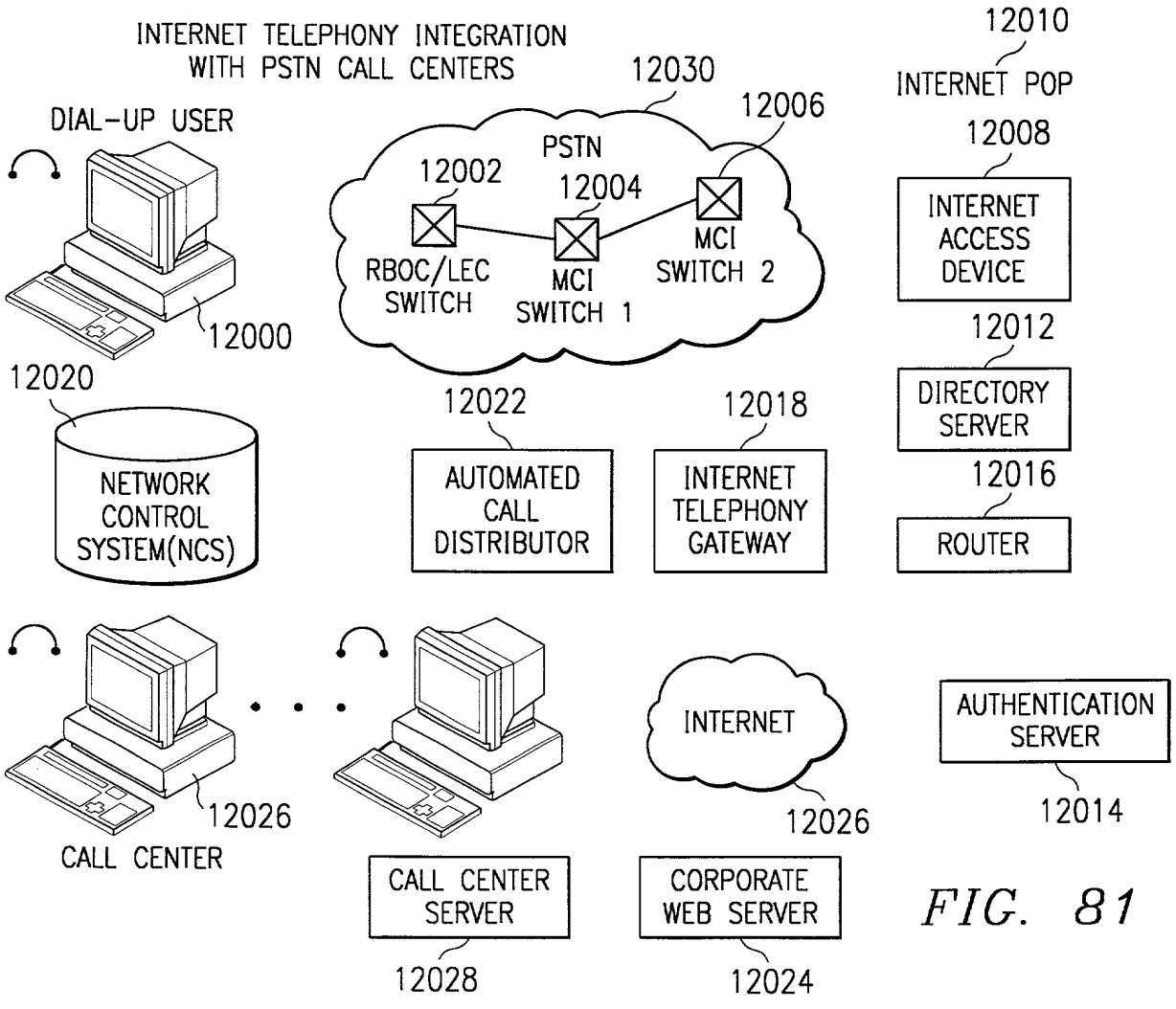

INTERNET TELEPHONY INTEGRATION WITH PSTN CALL CENTERS
12010
INTERNET POP
12030
12006
DIAL-UP USER
PSTN
12008
12002
12004
INTERNET ACCESS DEVICE
RBOC/LEC SWITCH
MCI SWITCH 1
MCI SWITCH 2
12012
12000
12020
DIRECTORY SERVER
12022
12018
12016
NETWORK CONTROL SYSTEM(NCS)
AUTOMATED CALL DISTRIBUTOR
INTERNET TELEPHONY GATEWAY
ROUTER
INTERNET
AUTHENTICATION SERVER
12026
12014
CALL CENTER
CALL CENTER SERVER
CORPORATE WEB SERVER
12028
12024

FIG. 81

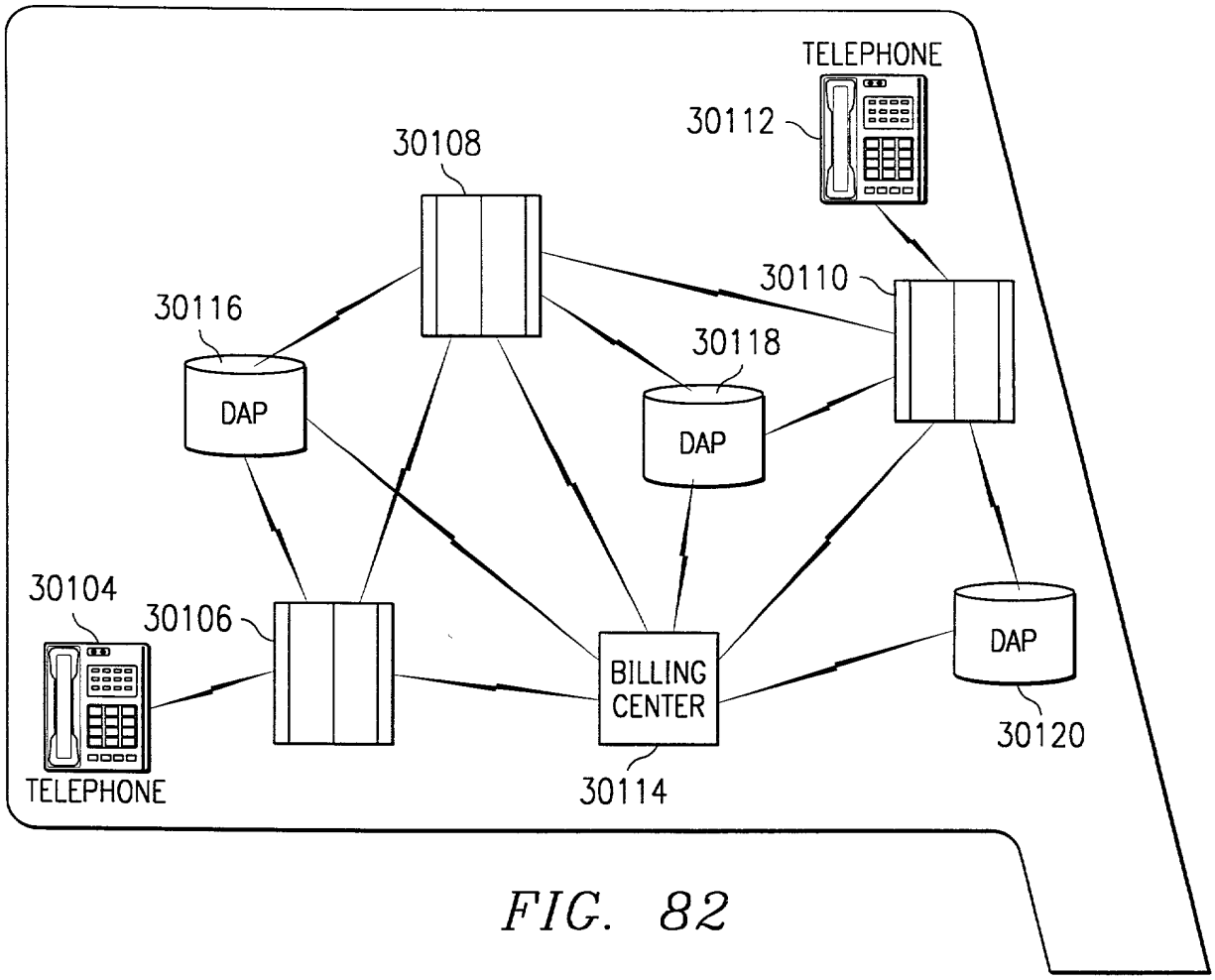

TELEPHONE
30112
30108
30110
30116
30118
DAP
DAP
30104
30106
BILLING CENTER
DAP
30120
TELEPHONE
30114

FIG. 82

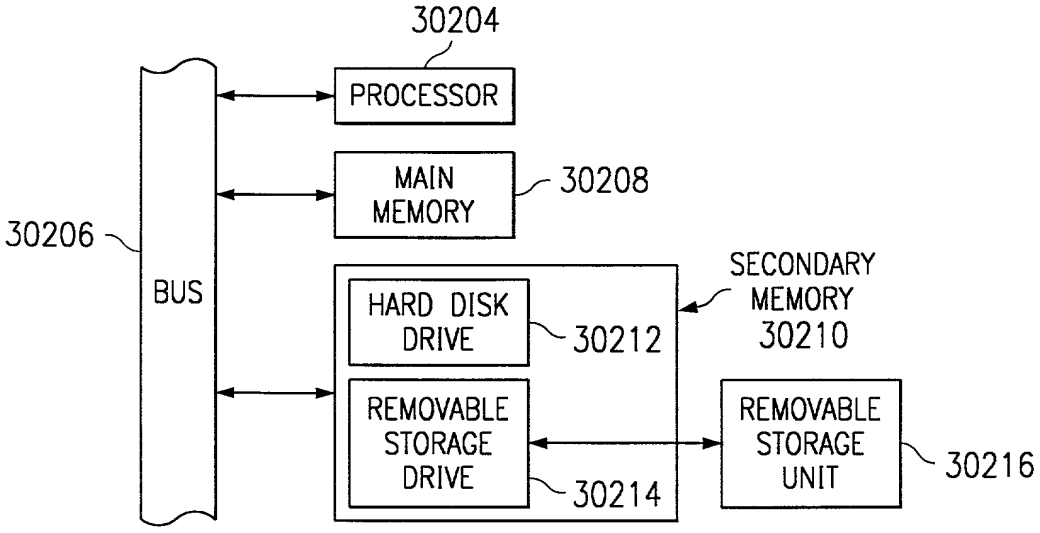

30204
PROCESSOR
MAIN MEMORY
30208
30206
BUS
SECONDARY MEMORY 30210
HARD DISK DRIVE
30212
REMOVABLE STORAGE DRIVE
30214
REMOVABLE STORAGE UNIT
30216

FIG. 83

	MSB															LSB
BITS	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD 00	CRID				CDID											
01	TP1 BITS 0-15															
02	TP1 BITS 16-31															
03	TP3 BITS 0-12														TP6 0-2	
04	TP6 BITS 3-12										TP7 BITS 0-5					
05	TP7 BITS 6-21															
06	OPL, ORIGINATING PORT 0-15															
07	OP	TPL, TERMINATING PORT 0-14														
08	TP	OTG, ORIGINATING TRUNK GROUP														TT
09	TERMINATING TRUNK GROUP (1-12)												TP3Q			
10	TP6Q	ACTION CODE							OTC				TTC			
11	ID1				ID2				ANI INDEX							
12	CLI 1				CLI 2				CLI 3				CLI 4			
13	CLI 5				CLI 6				CLI 7				CLI 8			
14	CLI 9				CLI 10				A1				A2			
15	A3				A4				A5				A6			
16	A7				A8				A9				A10			
17	A11				A12				A13				A14			
18	A15				A16				A17				A18			
19	A19				A20				A21				A22			
20	D1				D2				D3				D4			
21	D5				D6				D7				D8			
22	D9				D10				D11				D12			
23	D13				D14				D15				D16			
24	D17				PTO1				PTO2				PTO3			
25	PTO4				PTO5				PTO6				PTO7			
26	PTO8				PTO9				PTO10							
27	PC				TMC				KMP				TP70			
28	EC, ENTRY CODE								PO			MDID			DIVID	
29	DO		CC	IN		SC	CD	DE	DT			SA	MOCLI			
30	CN1				CN2				CN3				CN4			
31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 84

	MSB															LSB
BITS	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD 00	CRID				CDID											
01	TP1 BITS 0-15															
02	TP1 BITS 16-31															
03	TP3 BITS 0-12														TP6 0-2	
04	TP6 BITS 3-12											TP7 BITS 0-5				
05	TP7 BITS 6-21															
06	OPL, ORIGINATING PORT 0-15															
07	OP	TPL, TERMINATING PORT 0-14														
08	TP	OTG, ORIGINATING TRUNK GROUP														TT
09	TERMINATING TRUNK GROUP (1-12)														TP3Q	
10	TP6Q	ACTION CODE							OTC						TTC	
11	ID1				ID2				ANI INDEX							
12	CLI 1				CLI 2				CLI 3						CLI 4	
13	CLI 5				CLI 6				CLI 7						CLI 8	
14	CLI 9				CLI 10				CLI 11						CLI 12	
15	CLI 13				CLI 14				CLI 15						A1	
16	A2				A3				A4						A5	
17	A6				A7				A8						A9	
18	A10				A11				A12						A13	
19	A14				A15				A16						A17	
20	A18				A19				A20						A21	
21	A22				A23				A24						A25	
22	A26				A27				A28						A29	
23	A30				A31				A32						A33	
24	A34				A35				A36						A37	
25	A38				A39				A40						A41	
26	A42				A43				A44						A45	
27	PC				TMC				KMP						TP70	
28	EC, ENTRY CODE							PO				MDID			DIVID	
29	DO	MN	CC	IN		SC	CD	DE	DT			SA	MOCLI			
30	CN1				CN2				CN3				CN4			
31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 85A

BITS	MSB 00 01 02 03	04 05 06 07	08 09 10 11	12 13 14 LSB 15
32				
33				
34	D1	D2	D3	D4
35	D5	D6	D7	D8
36	D9	D10	D11	D12
37	D13	D14	D15	D16
38	D17	D18	D19	D20
39	D21	D22	D23	D24
40	D25	PTD1	PTD2	PTD3
41	PTD4	PTD5	PTD6	PTD7
42	PTD8	PTD9	PTD10	PTD11
43	PTD12	PTD13	PTD14	PTD15
44	EIR CALL TYPE		OVFVAL	CB
45	OVFCL	DTA 1	DTA 2	DTA 3
46	DTA 4	DTA 5	DTA 6	DTA 7
47	DTA 8	DTA 9	DTA 10	DTA 11
48	DTA 12	DTA 13	DTA 14	DTA 15
49	OVFC		DTAC	MCID
50	NETWORK CALL IDENTIFIER (NCID)			
51	NETWORK CALL IDENTIFIER (NCID)			
52	NETWORK CALL IDENTIFIER (NCID)			
53	NETWORK CALL IDENTIFIER (NCID)			
54	NETWORK CALL IDENTIFIER (NCID)			
55				
56				
57				
58				
59			USE TYPE	UUIE
60	UUIE COUNT CONT.			OVFCS
61	ORIGINATING NX64 BITMAP (1-16)			
62	ORIG NX64 BITMAP (17-24)		TERM NX64 BITMAP (1-8)	
63	TERMINATING NX64 BITMAP (9-24)			
BIT	00 01 02 03	04 05 06 07	08 09 10 11	12 13 14 15

FIG. 85B

BITS	MSB 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
WORD 00	CRID				CDID											
01	TP1 BITS 0–15															
02	TP1 BITS 16–31															
03	TP4 BITS 0–12														TP6 0–2	
04	TP6 BITS 3–12											TP7 BITS 0–5				
05	TP7 BITS 6–21															
06	OPL, ORIGINATING PORT 0–15															
07	OP	TPL, TERMINATING PORT 0–14														
08	TP	OTG, ORIGINATING TRUNK GROUP														TT
09	TERMINATING TRUNK GROUP (1–12)														TP3Q	
10	TP6Q	ACTION CODE							OTC						TTC	
11	ID1				ID2				ONACC						TNACC	
12	CLI 1				CLI 2				CLI 3						CLI 4	
13	CLI 5				CLI 6				CLI 7						CLI 8	
14	CLI 9				CLI 10				A1						A2	
15	A3				A4				A5						A6	
16	A7				A8				A9						A10	
17	A11				A12				A13						A14	
18	A15				A16				A17						A18	
19	A19				A20				A21						A22	
20	D1				D2				D3						D4	
21	D5				D6				D7						D8	
22	D9				D10				D11						D12	
23	D13				D14				D15						D16	
24	D17				OPIN											
25	OPIN		TPS BITS 0–12													
26	RN1				RN2				RN3						RN4	
27	FC				TMC				NAT						TP7Q	
28	EC, ENTRY CODE								PO			MDID			DIVID	
29	DO		CC	IN		SC	CD	DE	DT	PP	XC	SA	MOCLI			
30	CN1				CN2				CN3						CN4	
31	ACIF				SS7 RELEASE CODE							MCIDSEQ		NL	RS	
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 86

	MSB															LSB
BITS	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
WORD 00	CRID				CDID											
01	TP1 BITS 0-15															
02	TP1 BITS 16-31															
03	TP3 BITS 0-12													TP6 0-2		
04	TP6 BITS 3-12										TP7 BITS 0-5					
05	TP7 BITS 6-21															
06	OPL, ORIGINATING PORT 0-15															
07	OP	TPL, TERMINATING PORT 0-14														
08	TP	OTG, ORIGINATING TRUNK GROUP														TT
09	TERMINATING TRUNK GROUP (1-12)												TP3Q			
10	TP6Q	ACTION CODE						OTC					TTC			
11	ID1				ID2			ORIG1					TERM1			
12	CLI 1				CLI 2			CLI 3					CLI 4			
13	CLI 5				CLI 6			CLI 7					CLI 8			
14	CLI 9				CLI 10			CLI 11					CLI 12			
15	CLI 13				CLI 14			CLI 15					A1			
16	A2				A3			A4					A5			
17	A6				A7			A8					A9			
18	A10				A11			A12					A13			
19	A14				A15			A16					A17			
20	A18				A19			A20					A21			
21	A22				A23			A24					A25			
22	A26				A27			A28					A29			
23	A30				A31			A32					A33			
24	A34				A35			A36					A37			
25	A38				A39			A40					A41			
26	A42				A43			A44					A45			
27	PC				TMC			MAT					TF7Q			
28	EC, ENTRY CODE							PD			MDID			DIVID		
29	DO	MN	CC	IN		SC	CD	DE	DT	PP	XC	SA	MOCLI			
30	CN1				CN2			CN3					CN4			
31	ACIF				SS7 RELEASE CODE							MCIDSEQ			NL	RS
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

EOSR/EPOSR FORMAT

FIG. 87A

BITS	MSB 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
32	T&C GUEST 1								T&C GUEST 2							
33	T&C GUEST 3								T&C GUEST 4							
34	D1				D2				D3				D4			
35	D5				D6				D7				D8			
36	D9				D10				D11				D12			
37	D13				D14				D15				D16			
38	D17				D18				D19				D20			
39	D21				D22				D23				D24			
40	D25				PTD1				PTD2				PTD3			
41	PTD4				PTD5				PTD6				PTD7			
42	PTD8				PTD9				PTD10				PTD11			
43	PTD12				PTD13				PTD14				PTD15			
44	EIR CALL TYPE								OVFVAL							CB
45	OVFCL				DTA 1				DTA 2				DTA 3			
46	DTA 4				DTA 5				DTA 6				DTA 7			
47	DTA 8				DTA 9				DTA 10				DTA 11			
48	DTA 12				DTA 13				DTA 14				DTA 15			
49	OVFC								DTAC							MCID
50	NETWORK CALL IDENTIFIER (NCID)															
51	NETWORK CALL IDENTIFIER (NCID)															
52	NETWORK CALL IDENTIFIER (NCID)															
53	NETWORK CALL IDENTIFIER (NCID)															
54	NETWORK CALL IDENTIFIER (NCID)															
55	T&C ROOM 1								T&C ROOM 2							
56	T&C ROOM 3								T&C ROOM 4							
57	T&C ROOM 5								T&C ROOM 6							
58	KAC1				KAC2				KAC3				KAC4			
59	KAC5				KAC6				KAC7				KAC8			
60	KAC9				KAC10				KAC11				KAC12			
61	OPIN															OVFCS
62	TPS – OPERATOR RELEASE															
63	RN1				RN2				RN3				RN4			
BIT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 87B

	MSB BIT 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	LSB 15
WORD 00	CRID				SYNC WORD (MINUS 2, OCTAL 7776)											
01	CDID, CALL DISCONNECT I.D. NUMBER (0-15)															
02	CDID, CALL DISCONECT I.D. NUMBER (16-31)															
03	SWID 1				SWID 2						SWID 3					
04	ST - SWITCH TYPE								EQ - EVENT QUALIFIER							
05	SERET - SER EVENT TIME (0-15)															
06	SERET - SER EVENT TIME (16-31)															
07					FCDID - FIRST RECORD CDID (12 LSBs)											
08					LCDID - LAST RECORD CDID (12 LSBs)											
09					NCDID - NEXT RECORD CDID (12 LSBs)											
10	NBSM - NEXAS BLOCK SEQUENCE MONSTER															
11	PT - PREVIOUS TIME (0-15)															
12	PT - PREVIOUS TIME (16-31)															
13	SI	TIME OFFSET														
14																
15																
16	SOFTWARE LOAD ID1								SOFTWARE LOAD ID2							
17	SOFTWARE LOAD ID3								SOFTWARE LOAD ID4							
18	SOFTWARE LOAD ID5								SOFTWARE LOAD ID6							
19	LAST PATCH/PR RLS1								LAST PATCH/PR RLS2							
20	QCDR							QICDR								
21	QPMR							QEPMR								
22	QOER							QEOMR								
23	QPOER							QEPOER								
24	QSER							CRYN								SU
25	CIR THROTTLE START TIME (0-15)															
26	CIR THROTTLE START TIME (16-31)															
27	CIR THROTTLE STOP TIME (0-15)															
28	CIR THROTTLE STOP TIME (16-31)															
29																FORMAT VER.
30	THROTTLE COUNT (0-15)															
31	THROTTLE COUNT (16-31)															
	BIT 00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15

FIG. 88

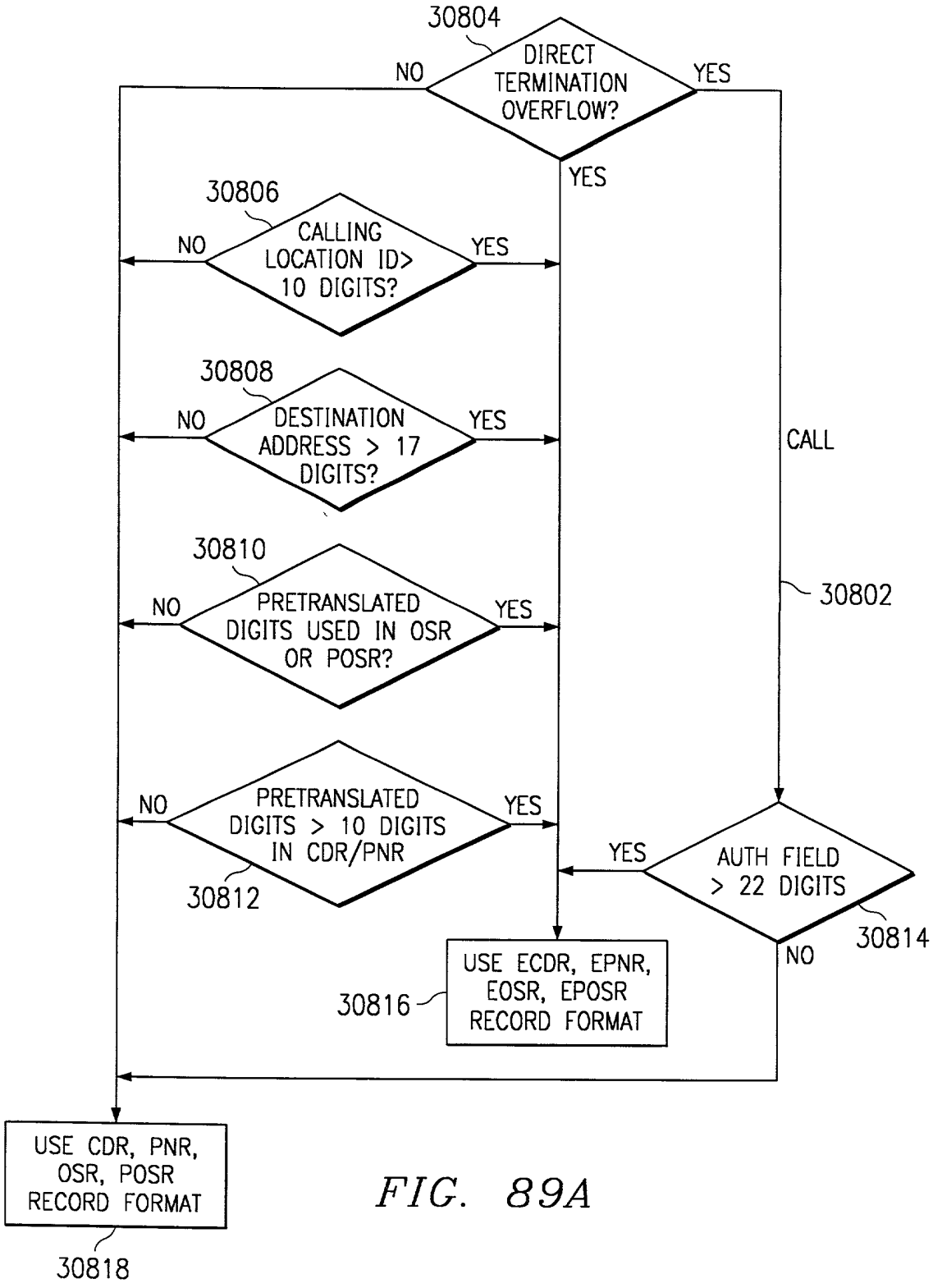

30804
DIRECT TERMINATION OVERFLOW?
NO
YES
YES
30806
CALLING LOCATION ID> 10 DIGITS?
NO
YES
30808
DESTINATION ADDRESS > 17 DIGITS?
NO
YES
CALL
30810
PRETRANSLATED DIGITS USED IN OSR OR POSR?
NO
YES
30802
PRETRANSLATED DIGITS > 10 DIGITS IN CDR/PNR
NO
YES
30812
YES
AUTH FIELD > 22 DIGITS
30814
NO
USE ECDR, EPNR, EOSR, EPOSR RECORD FORMAT
30816
USE CDR, PNR, OSR, POSR RECORD FORMAT
30818

FIG. 89A

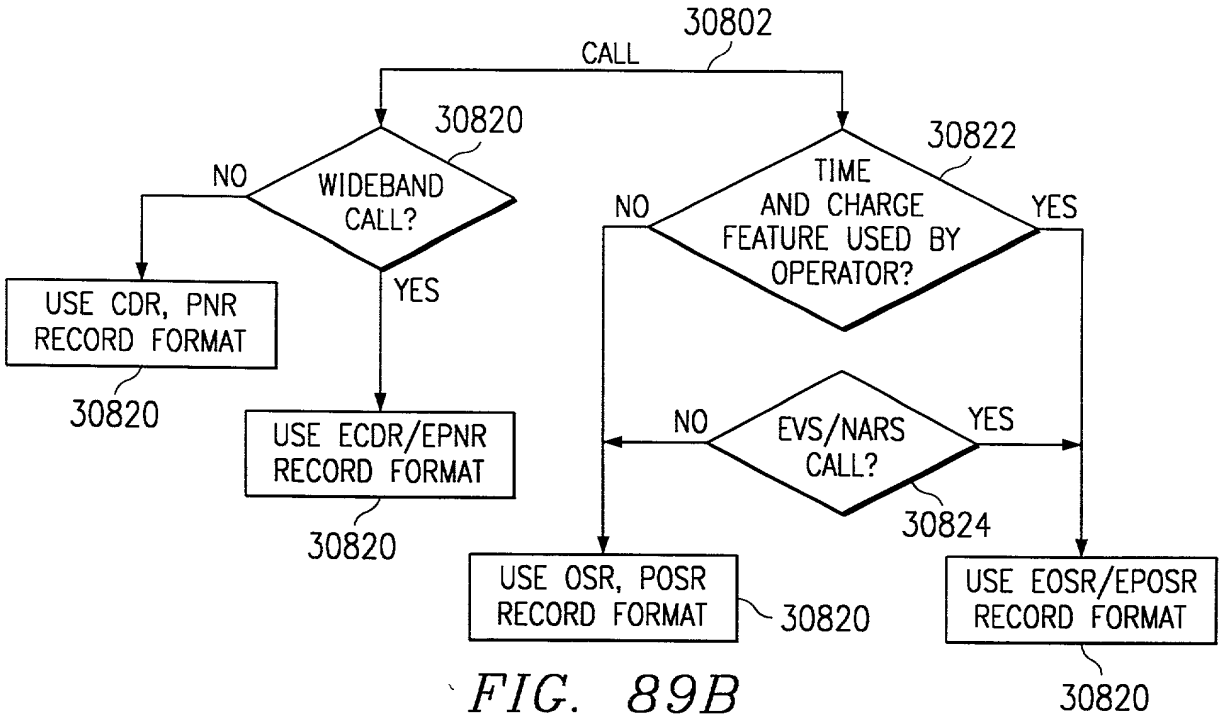


FIG. 89B

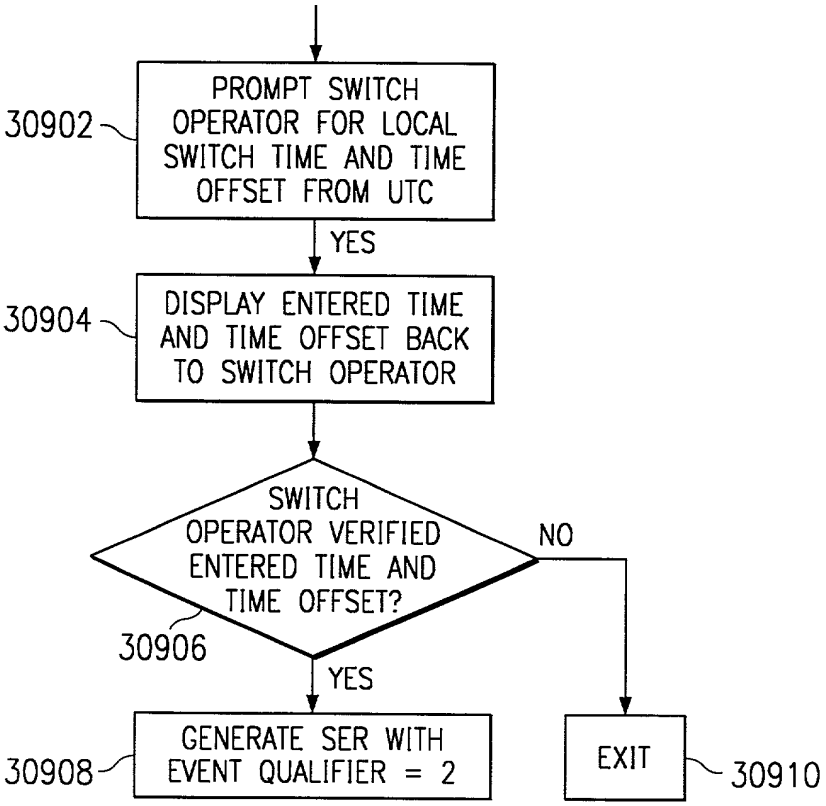


FIG. 90

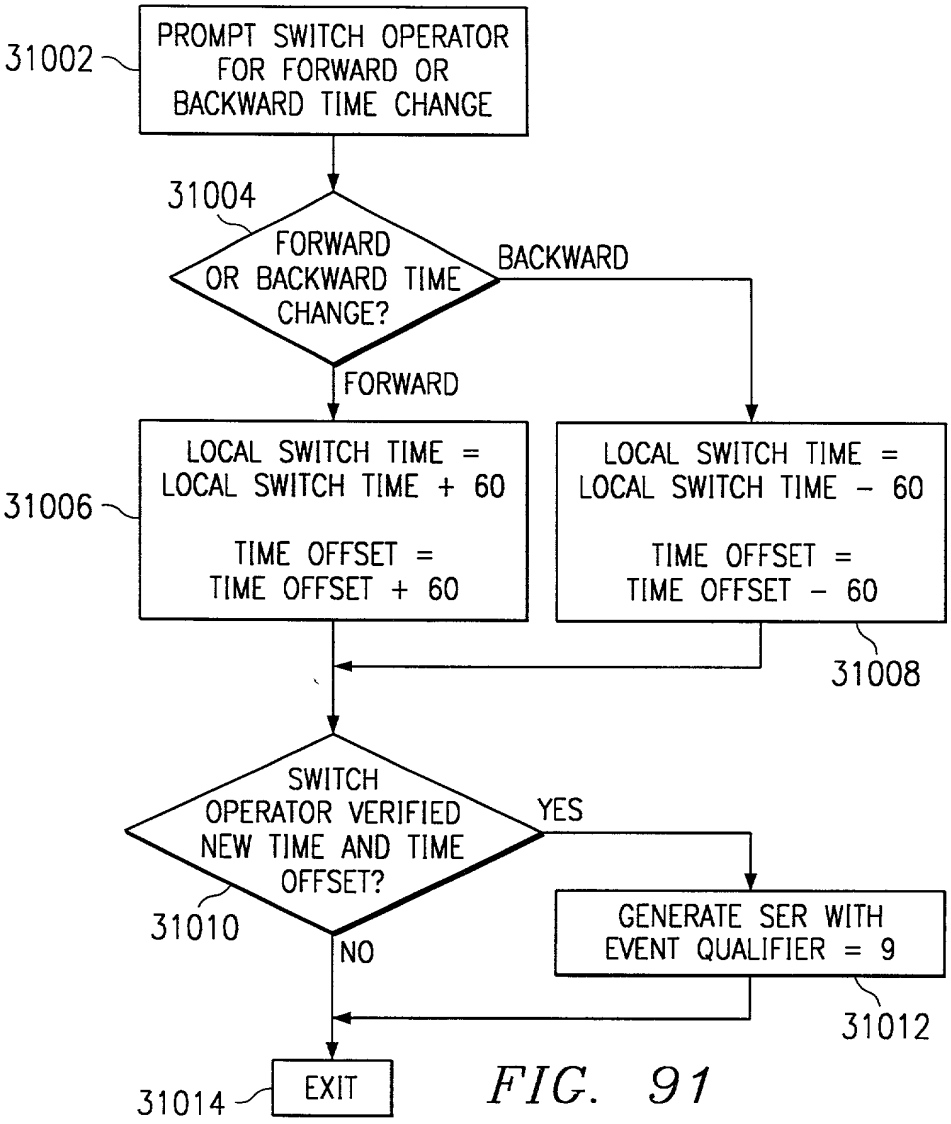


FIG. 91

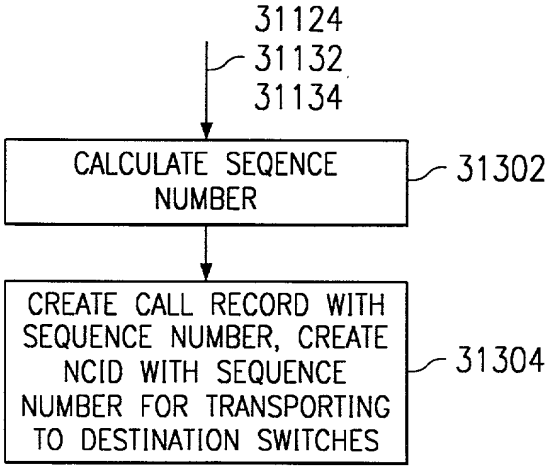


FIG. 94A

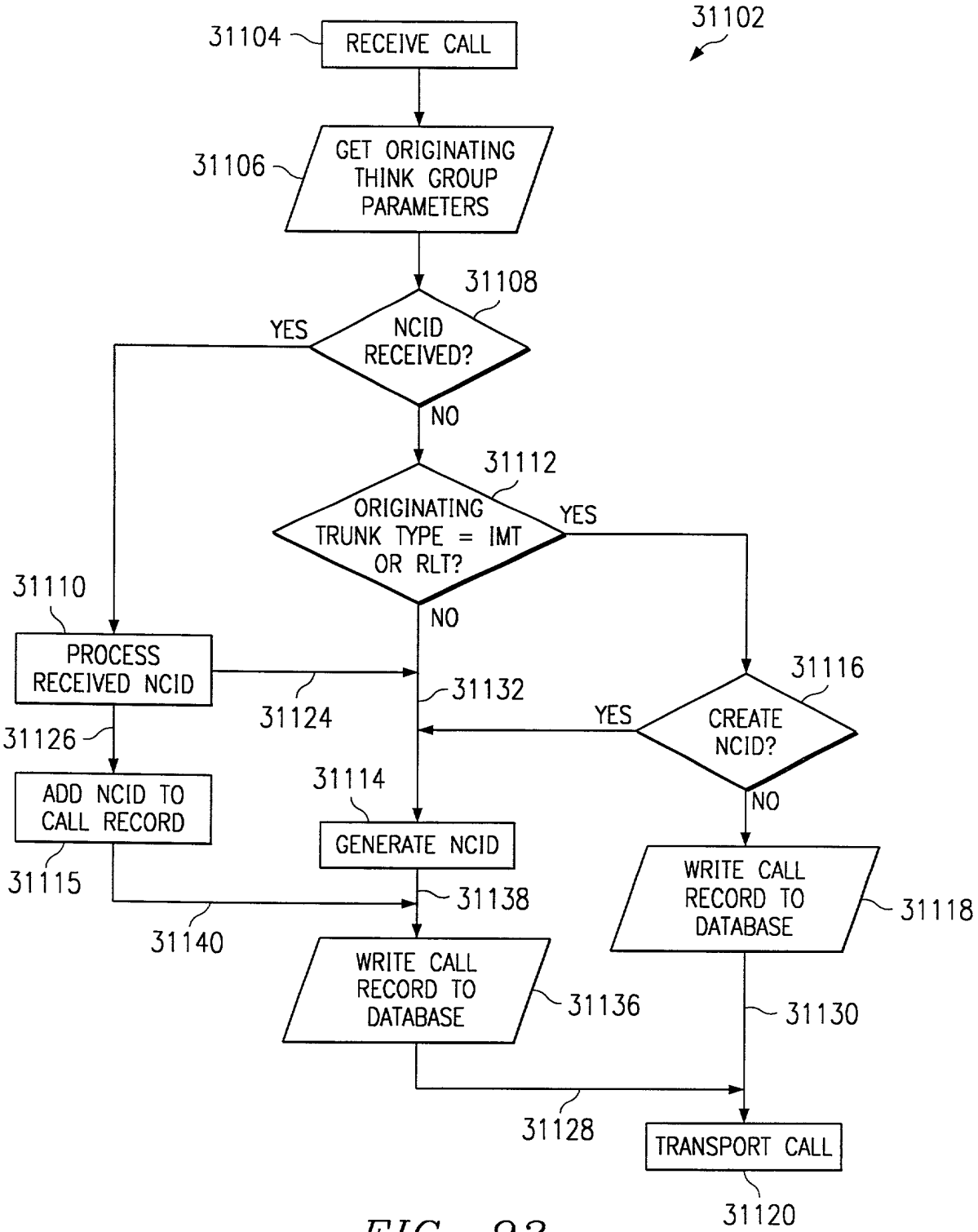

31102
31104
RECEIVE CALL
31106
GET ORIGINATING THINK GROUP PARAMETERS
31108
NCID RECEIVED?
YES
NO
31112
ORIGINATING TRUNK TYPE = IMT OR RLT?
YES
NO
31110
PROCESS RECEIVED NCID
31124
31132
31116
CREATE NCID?
YES
NO
31126
ADD NCID TO CALL RECORD
31115
31114
GENERATE NCID
31138
31140
WRITE CALL RECORD TO DATABASE
31136
WRITE CALL RECORD TO DATABASE
31118
31130
31128
TRANSPORT CALL
31120

FIG. 92

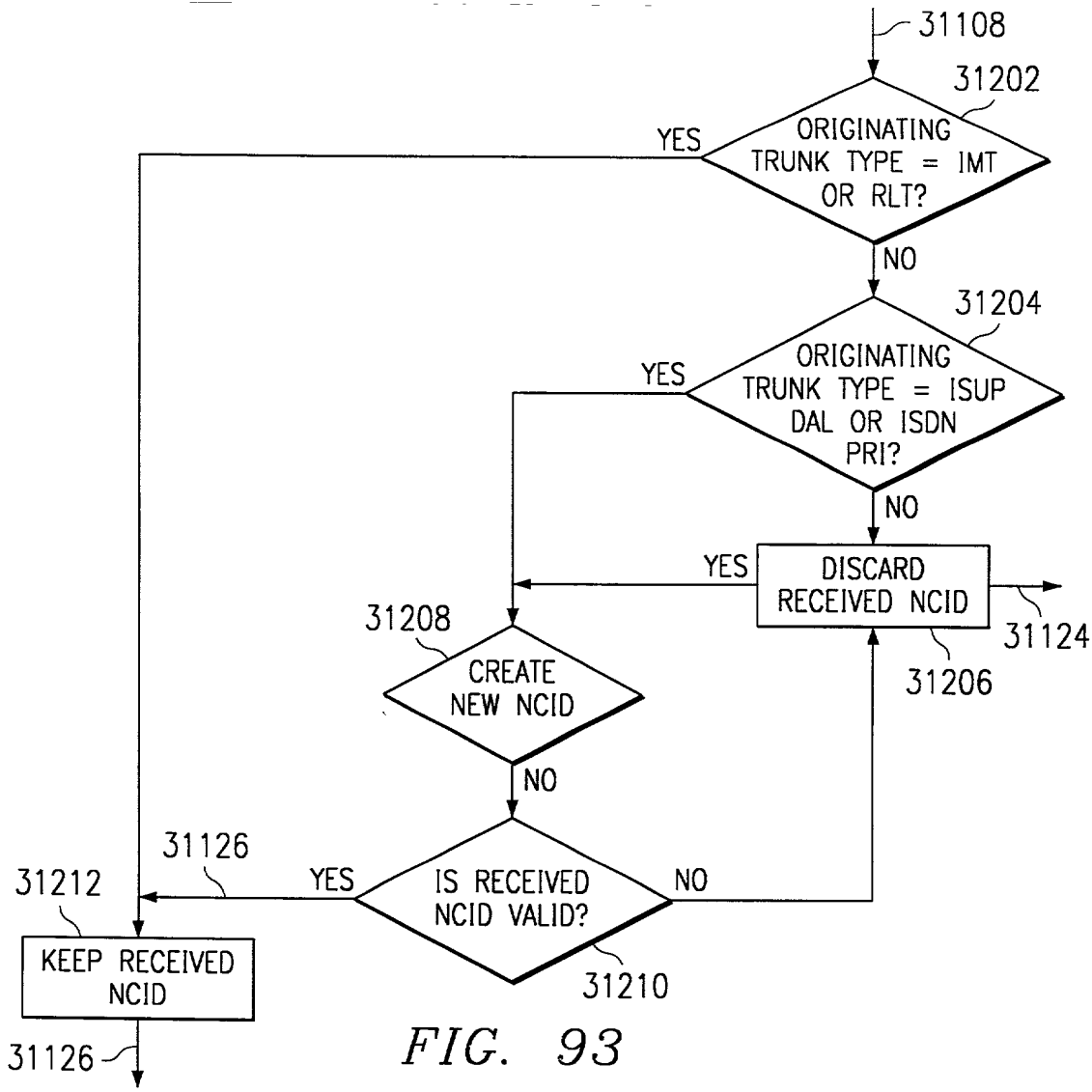


FIG. 93

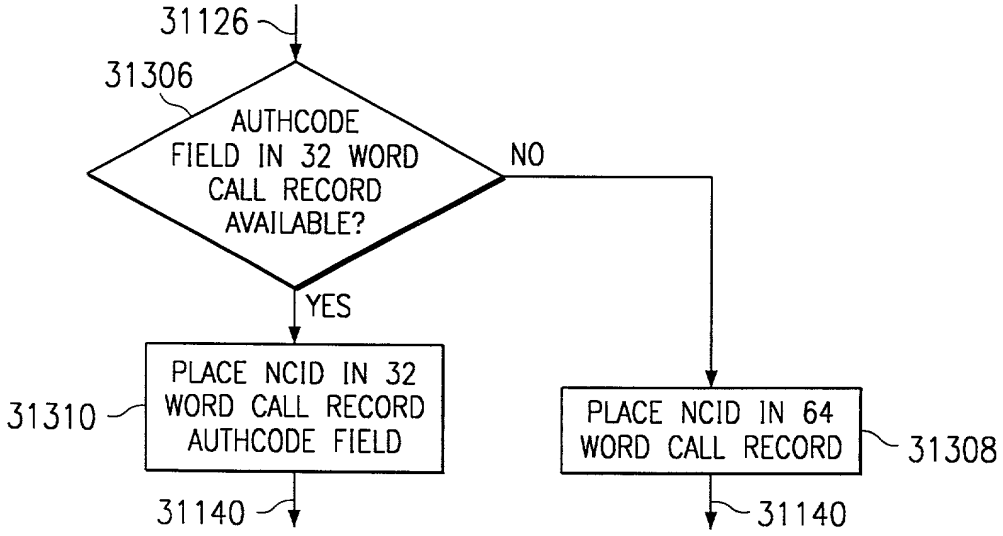


FIG. 94B

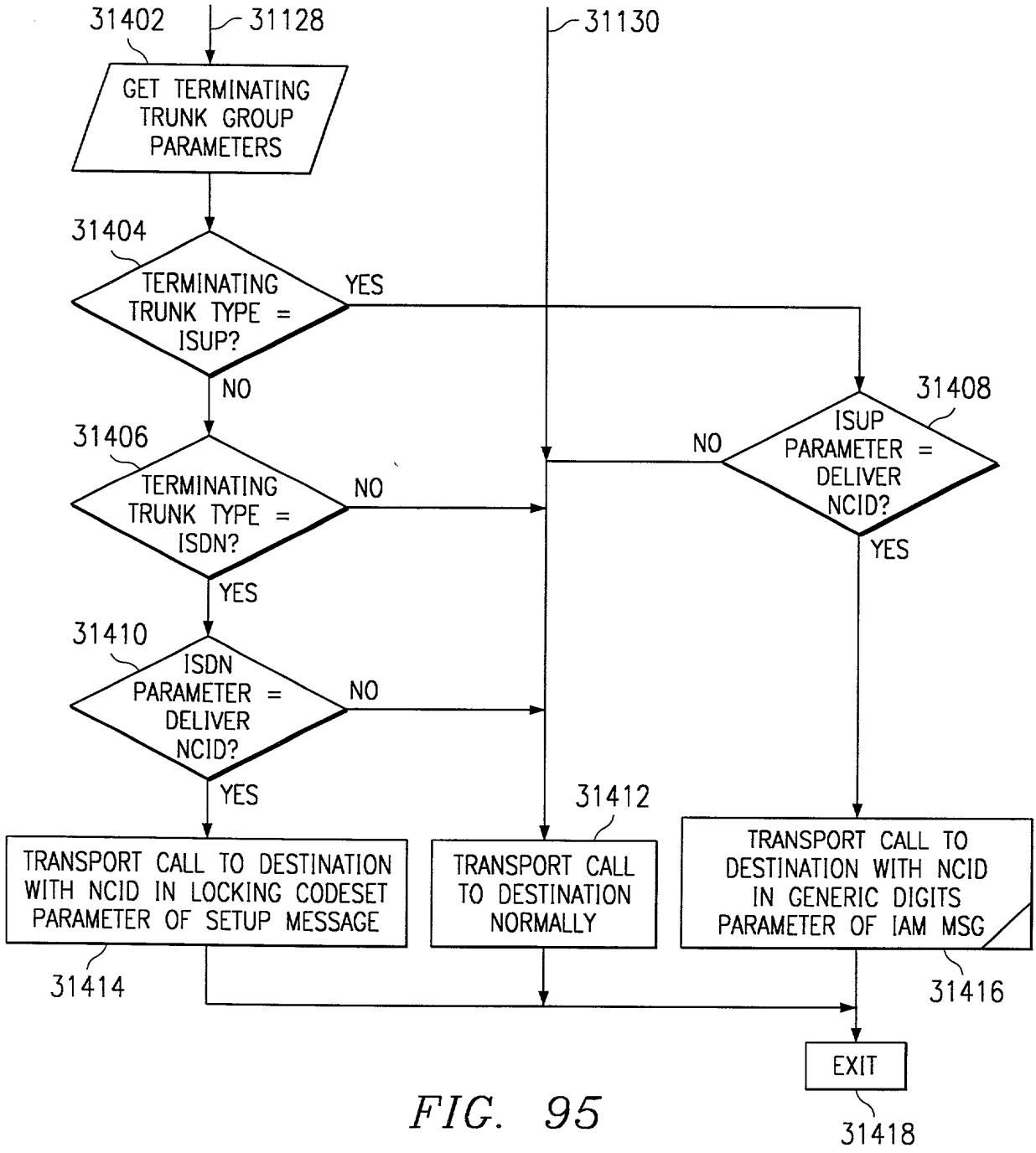

31402
31128
31130
GET TERMINATING TRUNK GROUP PARAMETERS
31404
TERMINATING TRUNK TYPE = ISUP?
YES
NO
31408
ISUP PARAMETER = DELIVER NCID?
NO
YES
31406
TERMINATING TRUNK TYPE = ISDN?
NO
YES
31410
ISDN PARAMETER = DELIVER NCID?
NO
YES
31412
TRANSPORT CALL TO DESTINATION WITH NCID IN LOCKING CODESET PARAMETER OF SETUP MESSAGE
TRANSPORT CALL TO DESTINATION NORMALLY
TRANSPORT CALL TO DESTINATION WITH NCID IN GENERIC DIGITS PARAMETER OF IAM MSG
31414
31416
EXIT
31418

FIG. 95

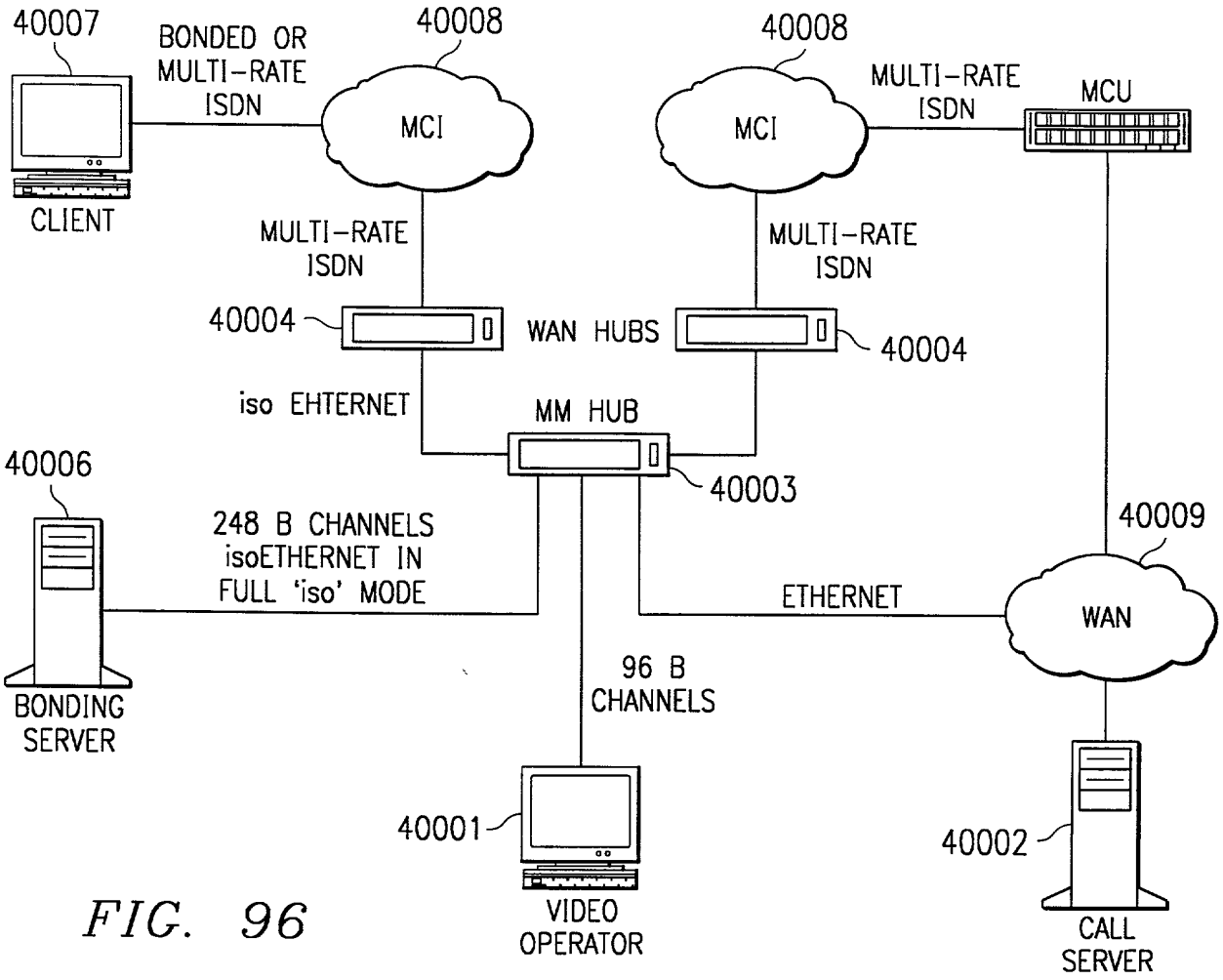
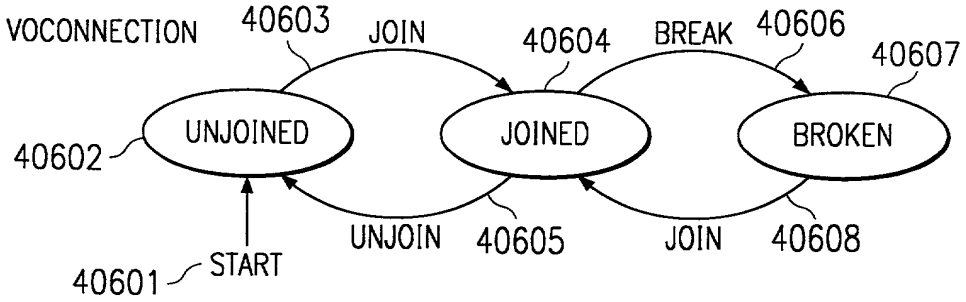


FIG. 96



STATE TRANSITION DIAGRAM FOR VOCONNECTION'S STATE VARIABLE

FIG. 102

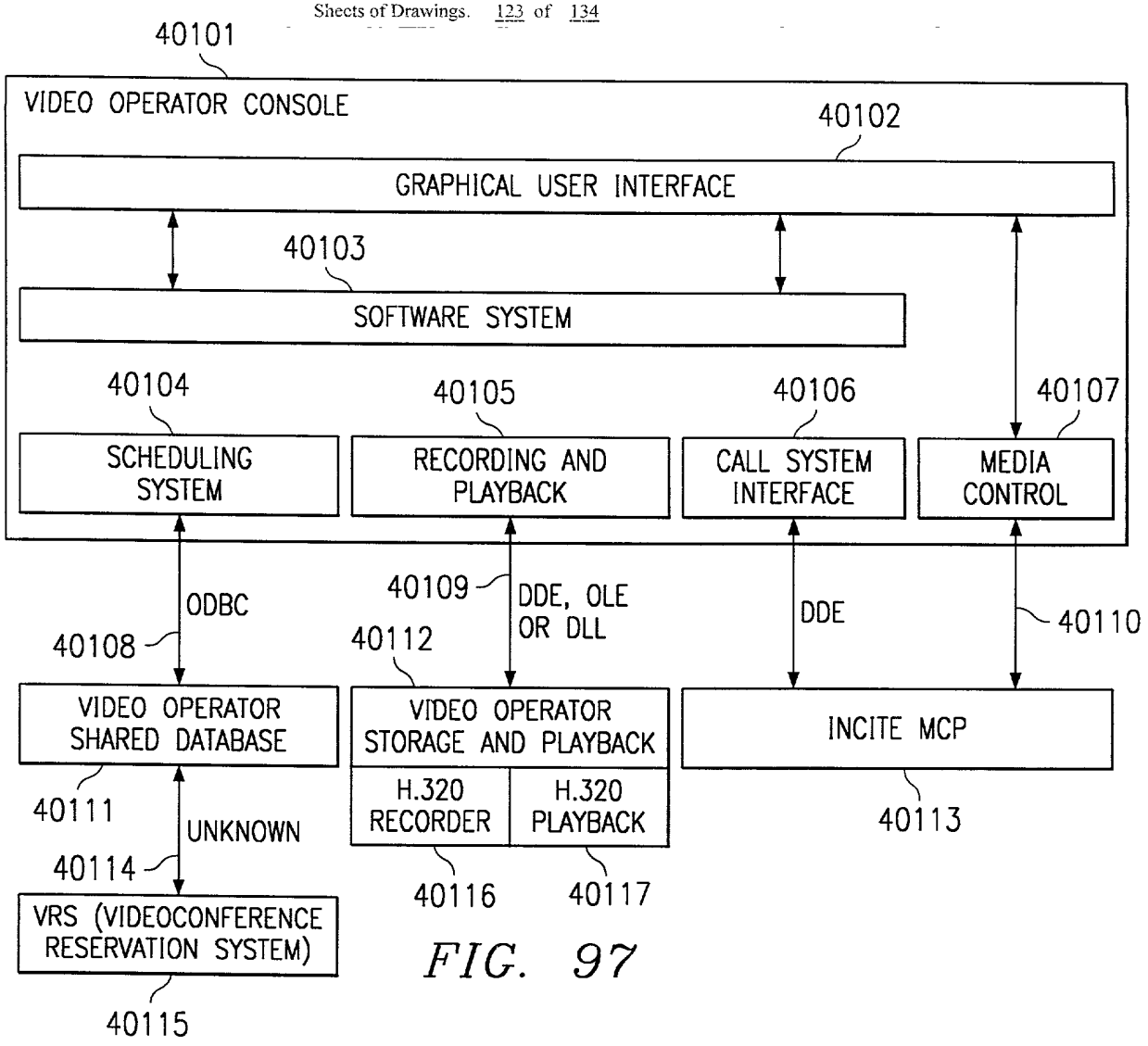
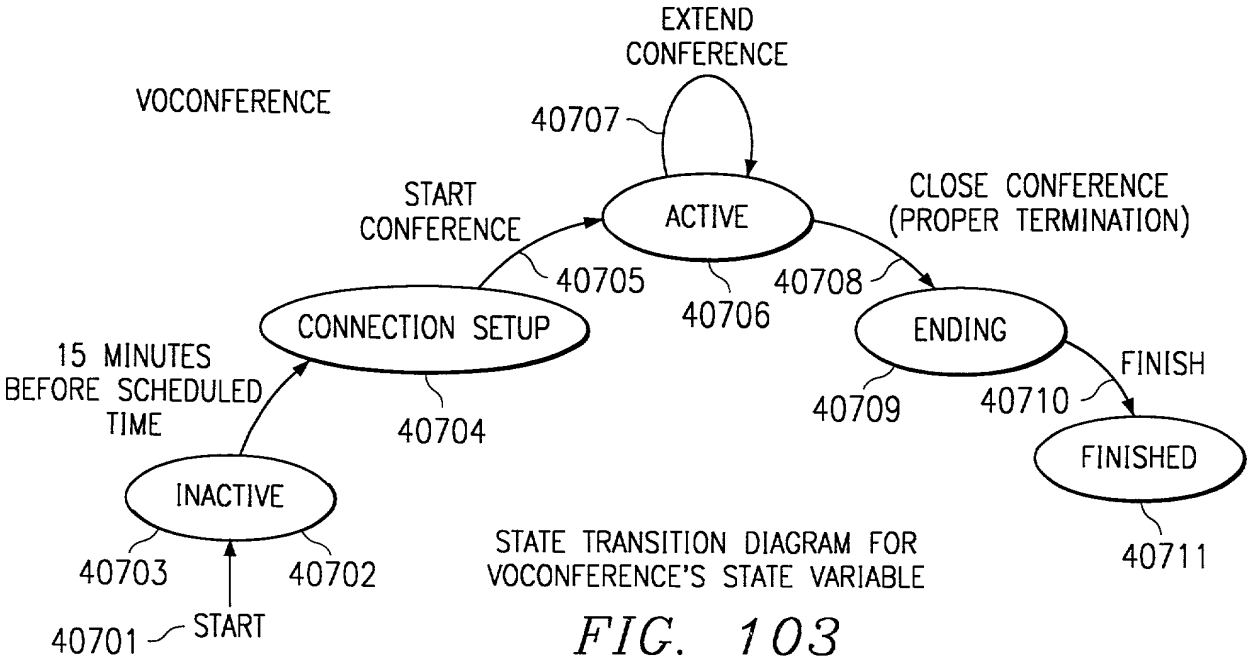


FIG. 97



STATE TRANSITION DIAGRAM FOR VOCONFERENCE'S STATE VARIABLE

FIG. 103

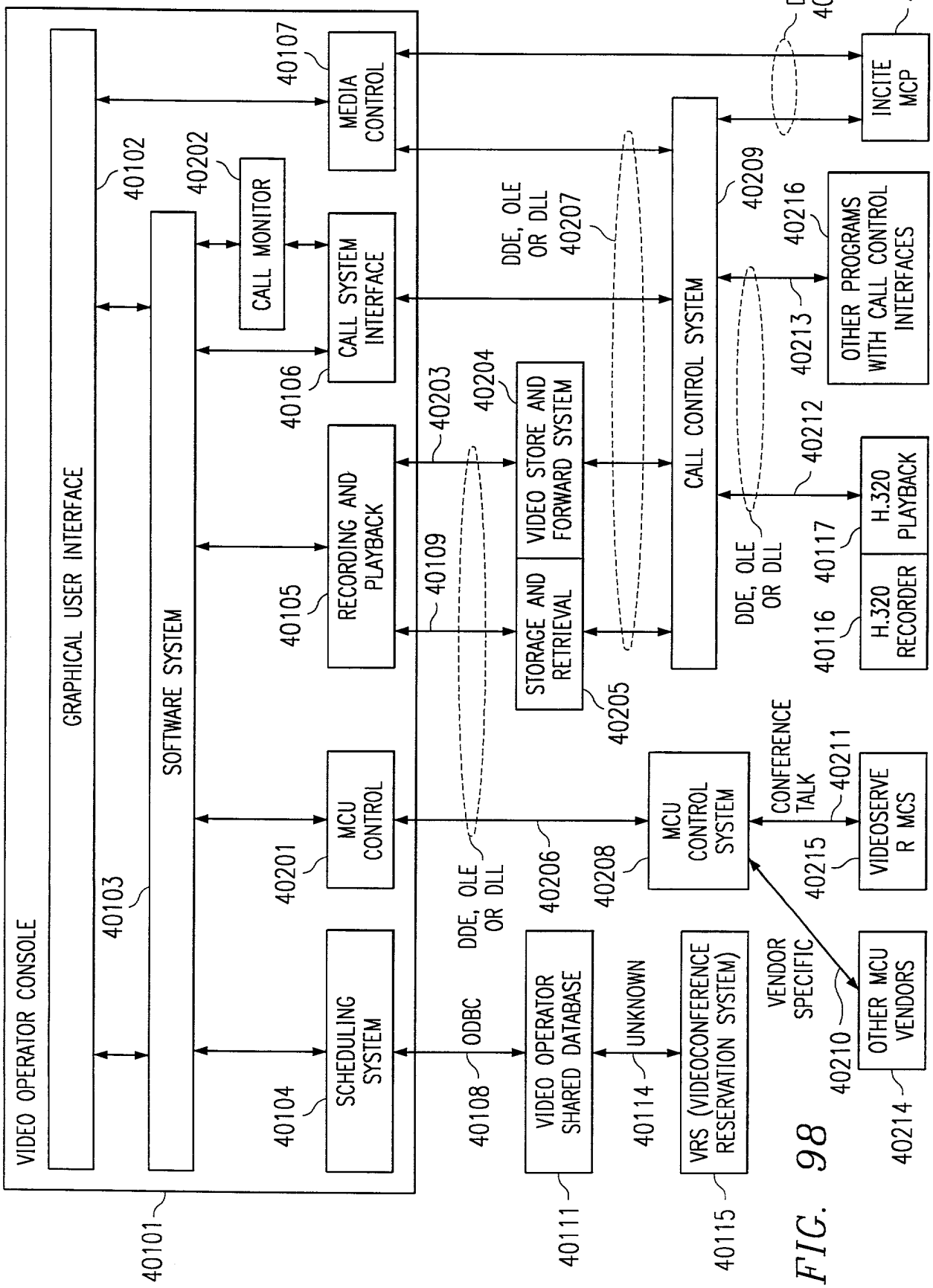

VIDEO OPERATOR CONSOLE
40101
GRAPHICAL USER INTERFACE
40102
SOFTWARE SYSTEM
40103
SCHEDULING SYSTEM
40104
RECORDING AND PLAYBACK
40105
CALL SYSTEM INTERFACE
40106
MEDIA CONTROL
40107
ODBC
40108
VIDEO OPERATOR SHARED DATABASE
40111
UNKNOWN
40114
VRS (VIDEOCONFERENCE RESERVATION SYSTEM)
40115
CALL MONITOR
40202
DDE, OLE OR DLL
40109
VIDEO STORE AND FORWARD SYSTEM
40204
STORAGE AND RETRIEVAL
40205
DDE, OLE OR DLL
40203
DDE, OLE OR DLL
40207
CALL CONTROL SYSTEM
40209
DDE, OLE OR DLL
40212
H.320 PLAYBACK
40117
H.320 RECORDER
40116
OTHER PROGRAMS WITH CALL CONTROL INTERFACES
40216
40213
DDE
40110
INCITE MCP
40213
MCU CONTROL
40201
DDE, OLE OR DLL
40206
MCU CONTROL SYSTEM
40208
CONFERENCE TALK
40211
VIDEOSERVER MCS
40215
VENDOR SPECIFIC
OTHER MCU VENDORS
40210
40214

FIG. 98

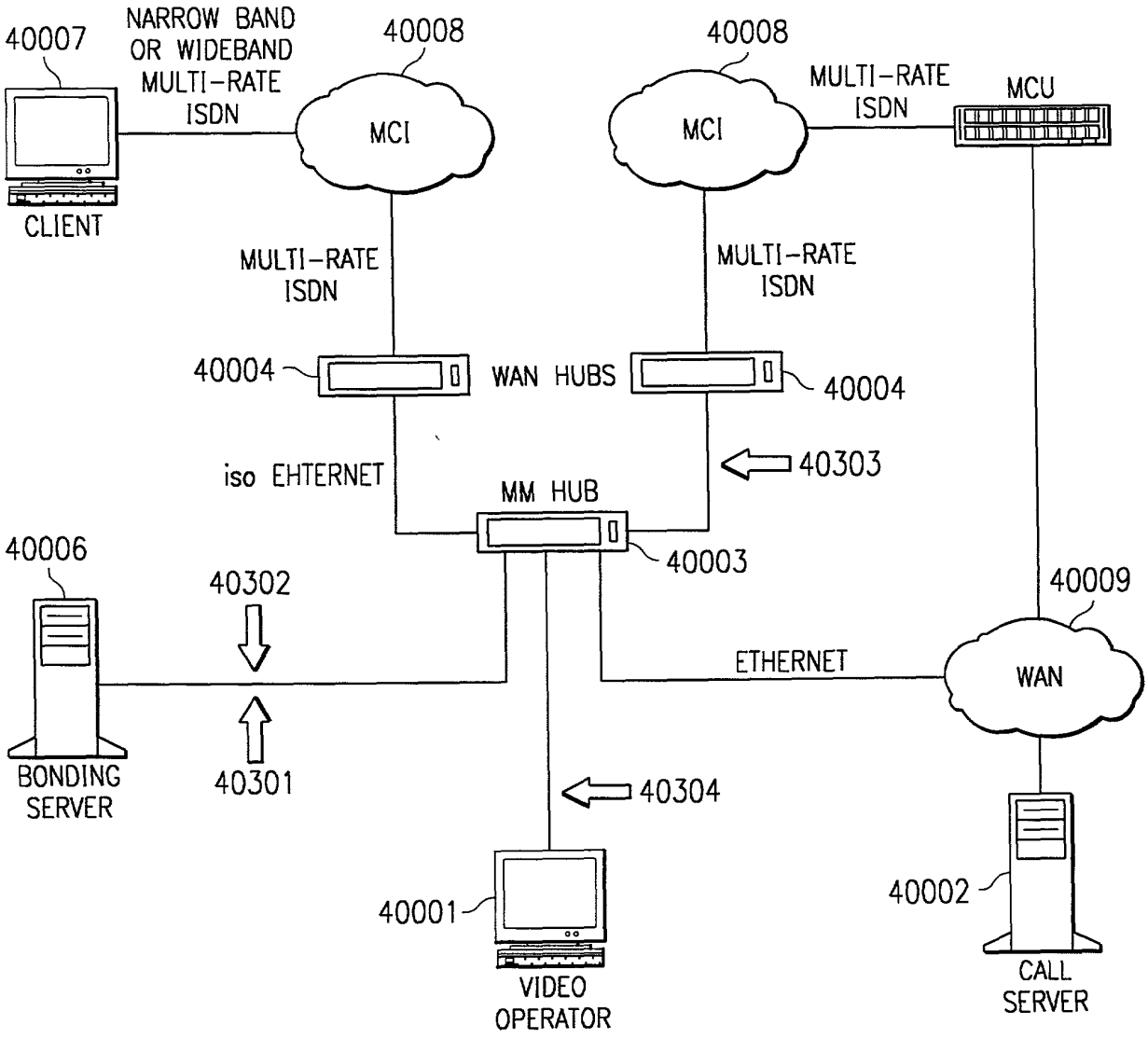
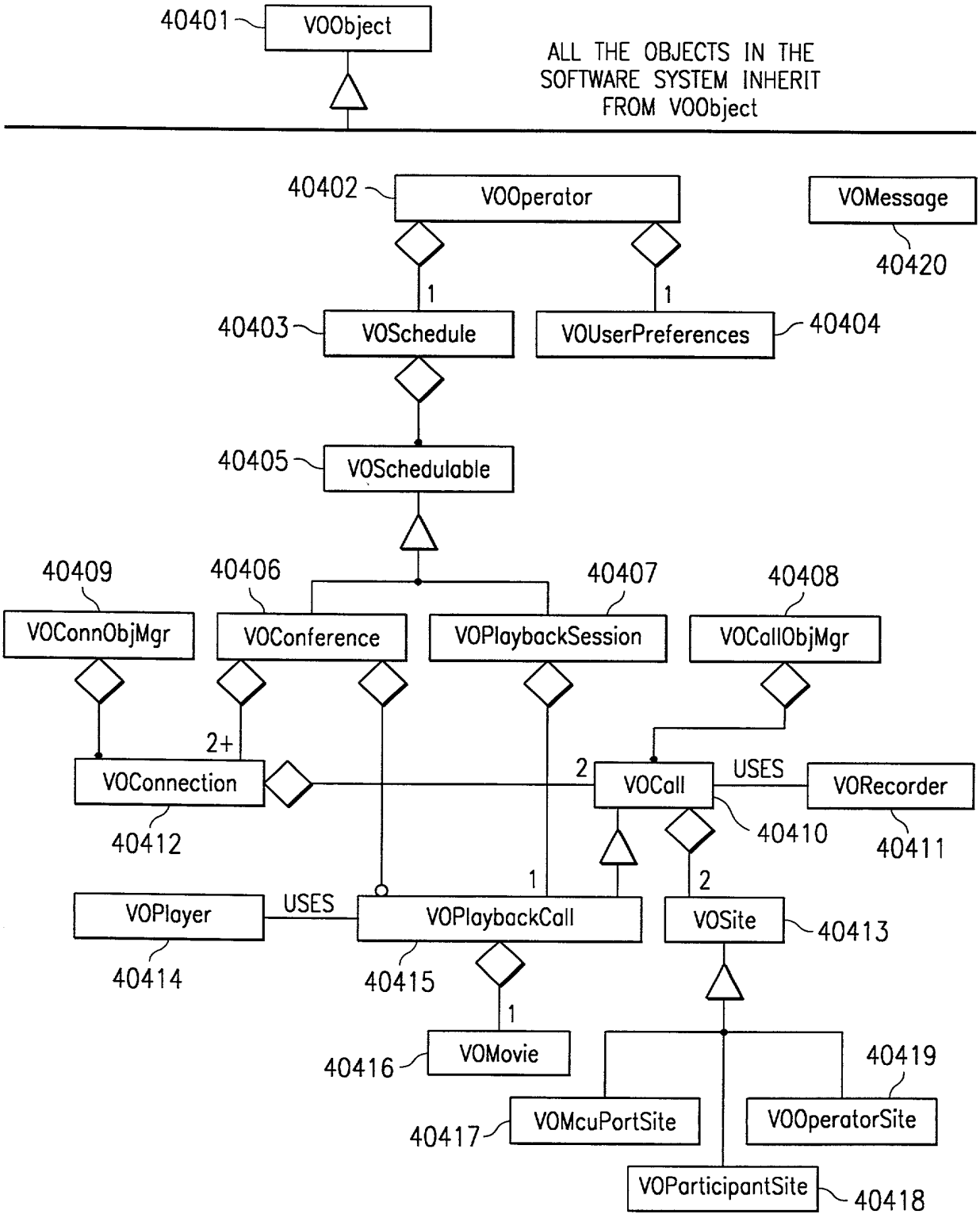

40007
NARROW BAND OR WIDEBAND MULTI-RATE ISDN
40008
MCI
CLIENT
MULTI-RATE ISDN
40004
WAN HUBS
iso EHTERNET
MM HUB
40003
40303
40006
40302
40301
BONDING SERVER
40304
40001
VIDEO OPERATOR
40008
MCI
MULTI-RATE ISDN
MCU
40004
40009
ETHERNET
WAN
40002
CALL SERVER

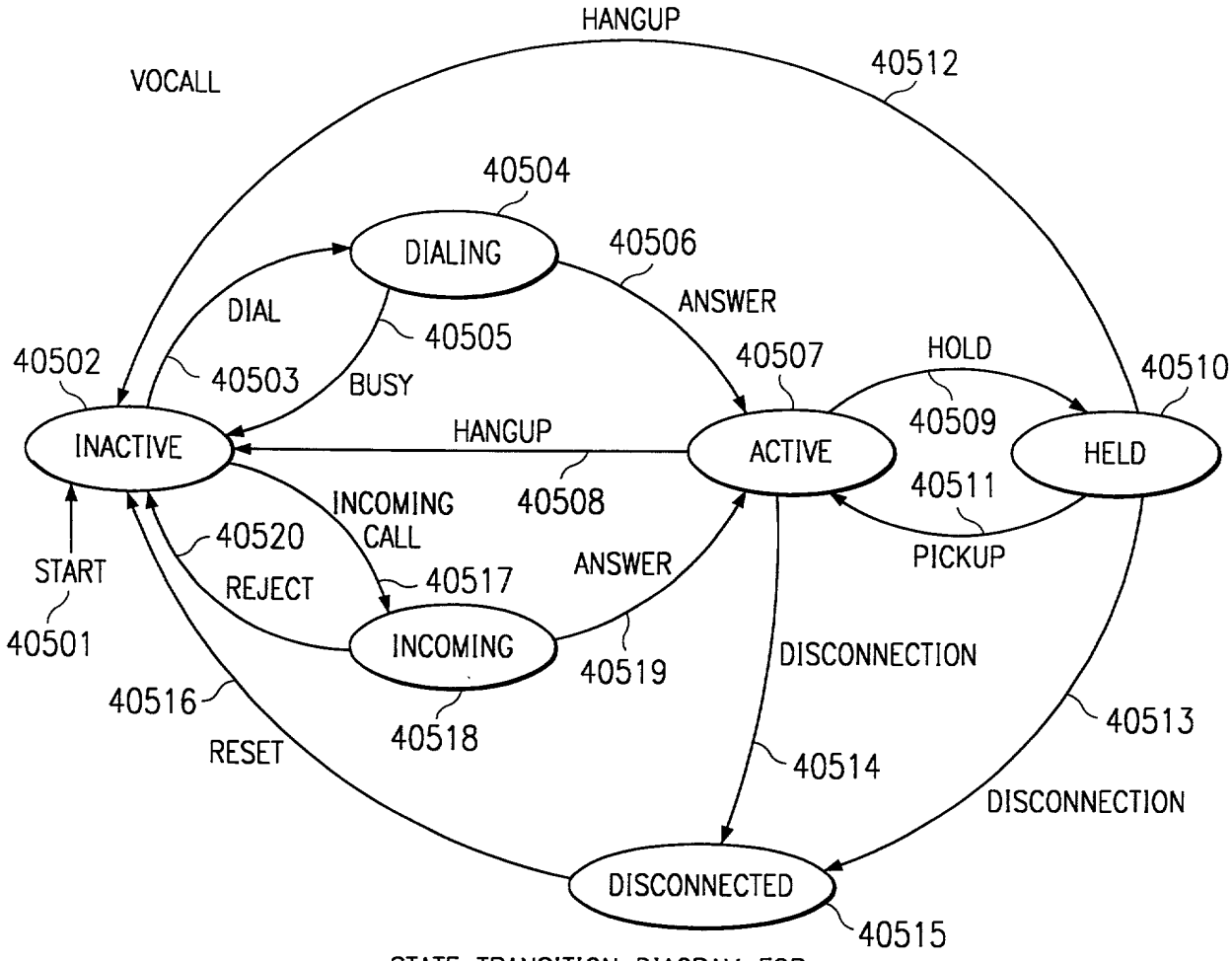
FIG. 99

VIDEO OPERATOR SOFTWARE SYSTEM CLASSES



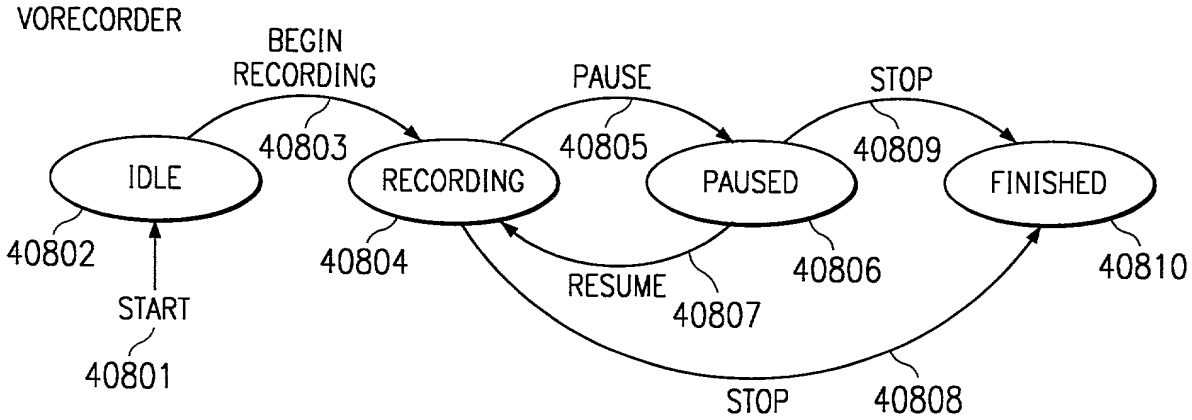
CLASS HIERARCHY FOR VIDEO OPERATOR SOFTWARE SYSTEM

FIG. 100



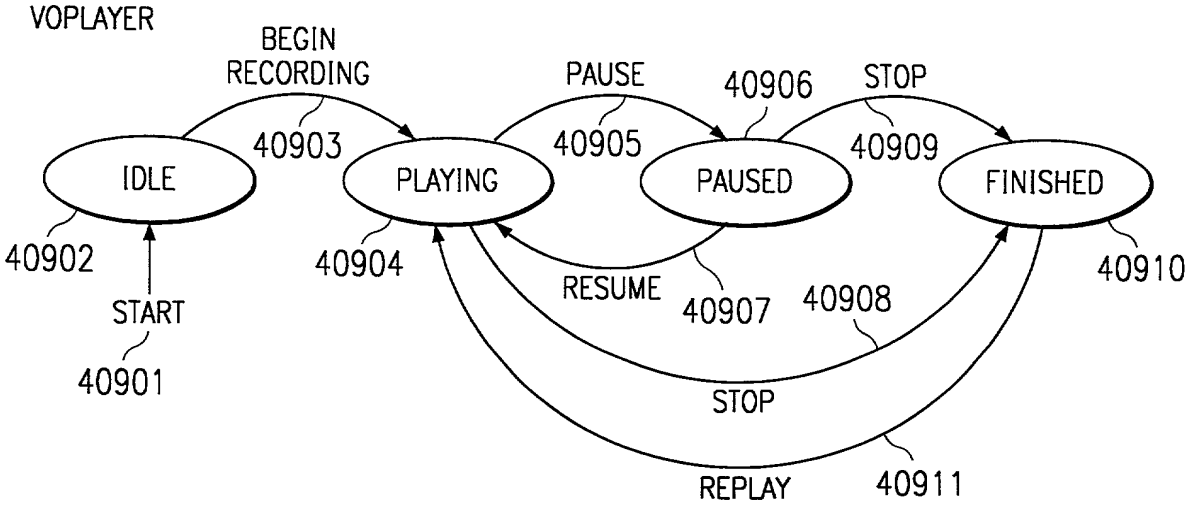
STATE TRANSITION DIAGRAM FOR VOCALL'S STATE VARIABLE

FIG. 101



STATE TRANSITION DIAGRAM FOR VORECORDER'S STATE VARIABLE

FIG. 104



STATE TRANSITION DIAGRAM FOR VOPLAYER'S STATE VARIABLE

FIG. 105

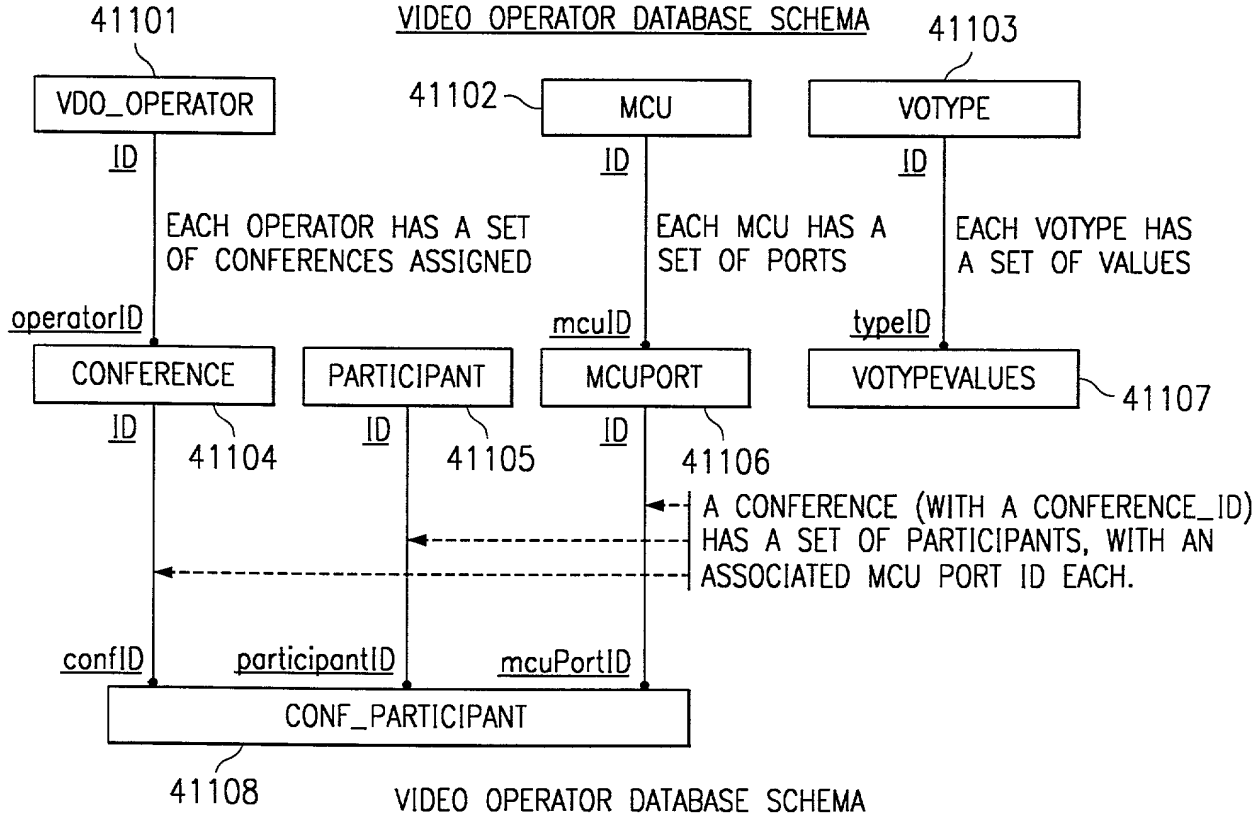


FIG. 107

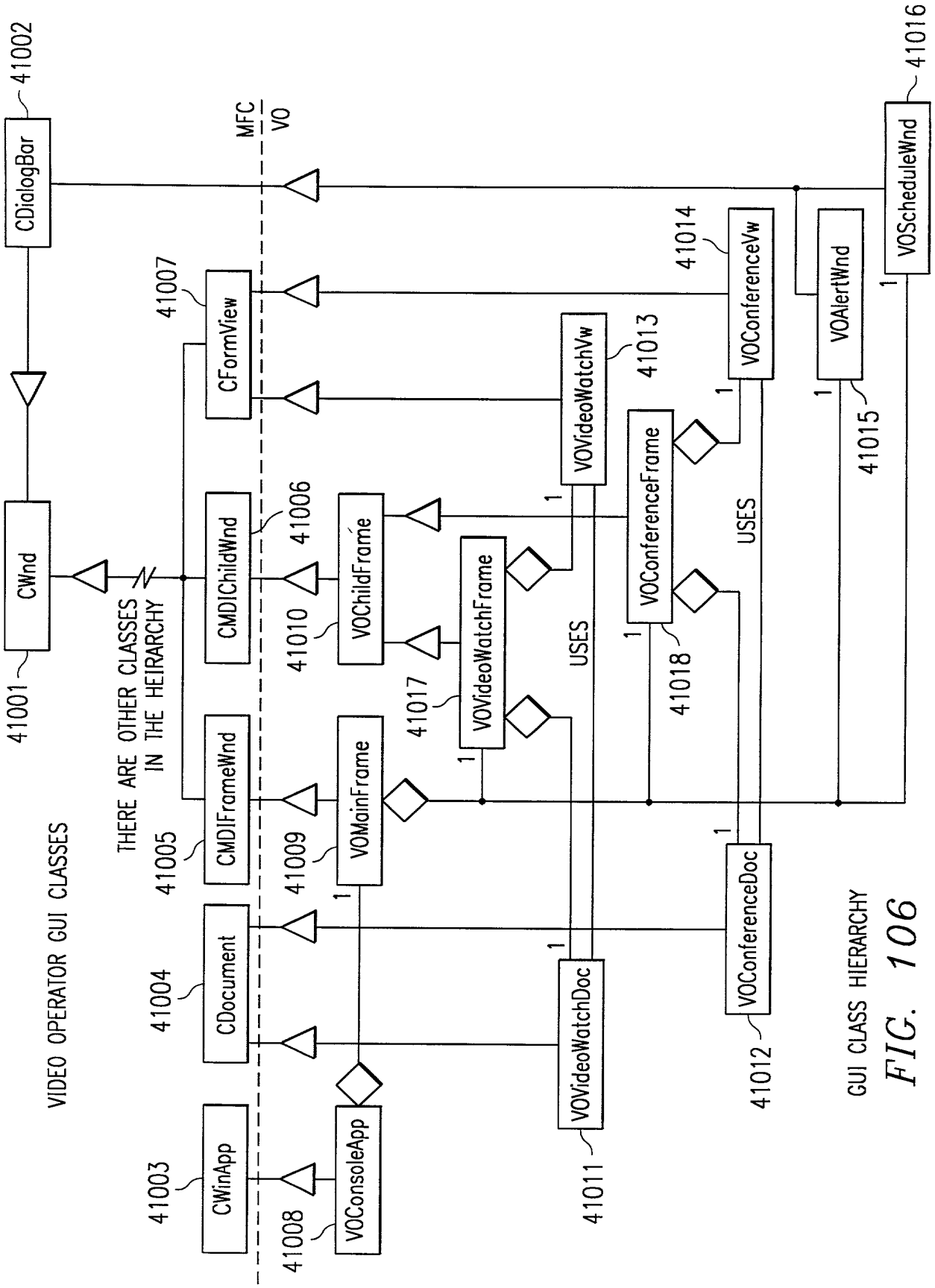
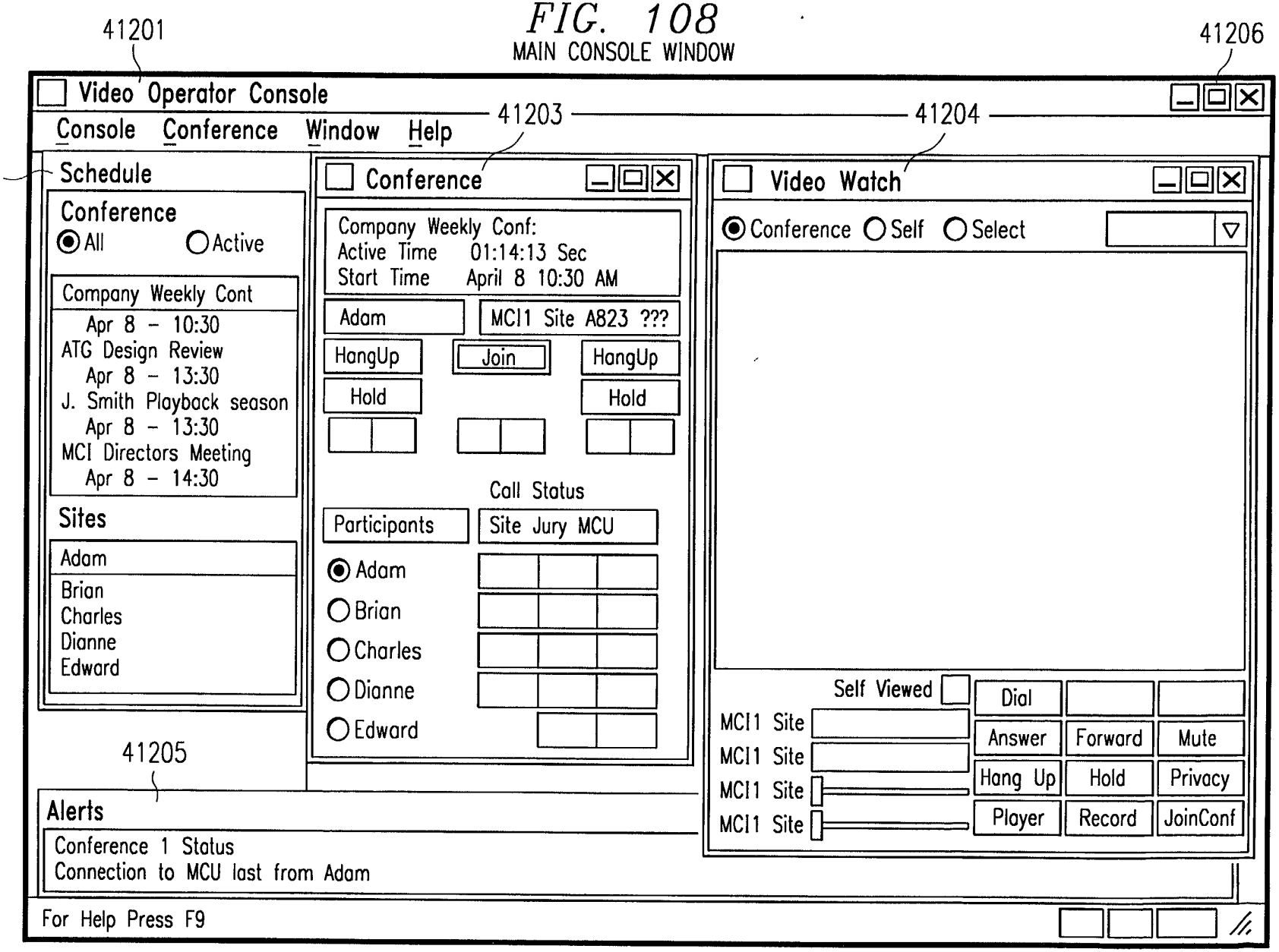

VIDEO OPERATOR GUI CLASSES
GUI CLASS HIERARCHY
MFC
VO
THERE ARE OTHER CLASSES IN THE HEIRARCHY
USES
USES
CDialogBar
CWnd
CFormView
CMDIChildWnd
CMDIFrameWnd
CDocument
CWinApp
VOConsoleApp
VOChildFrame
VOMainFrame
VOVideoWatchFrame
VOVideoWatchVw
VOVideoWatchDoc
VOConferenceFrame
VOConferenceVw
VOConferenceDoc
VOAlertWnd
VOScheduleWnd
41001
41002
41003
41004
41005
41006
41007
41008
41009
41010
41011
41012
41013
41014
41015
41016
41017
41018

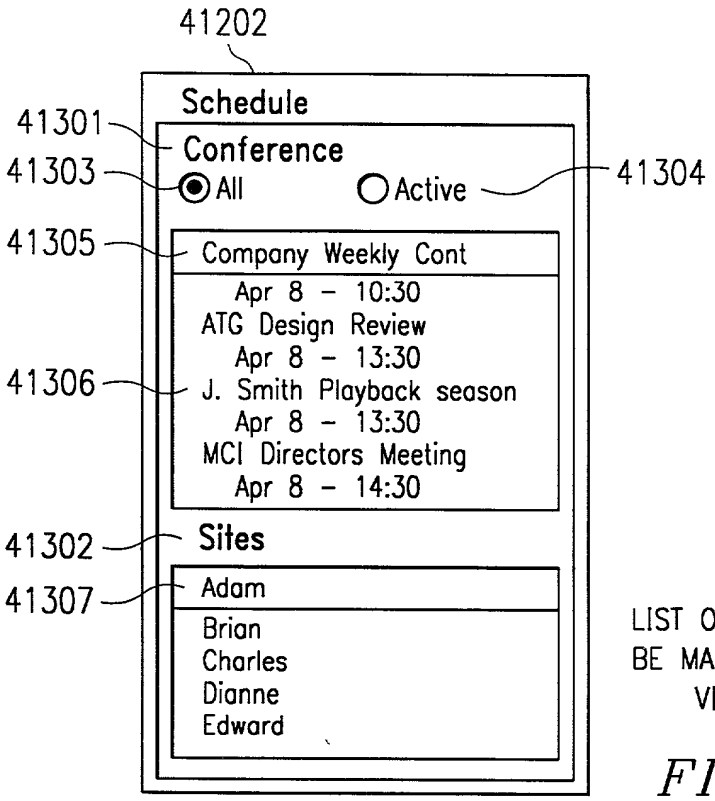
FIG. 106

TOHT90 "E8662860

FIG. 108
MAIN CONSOLE WINDOW

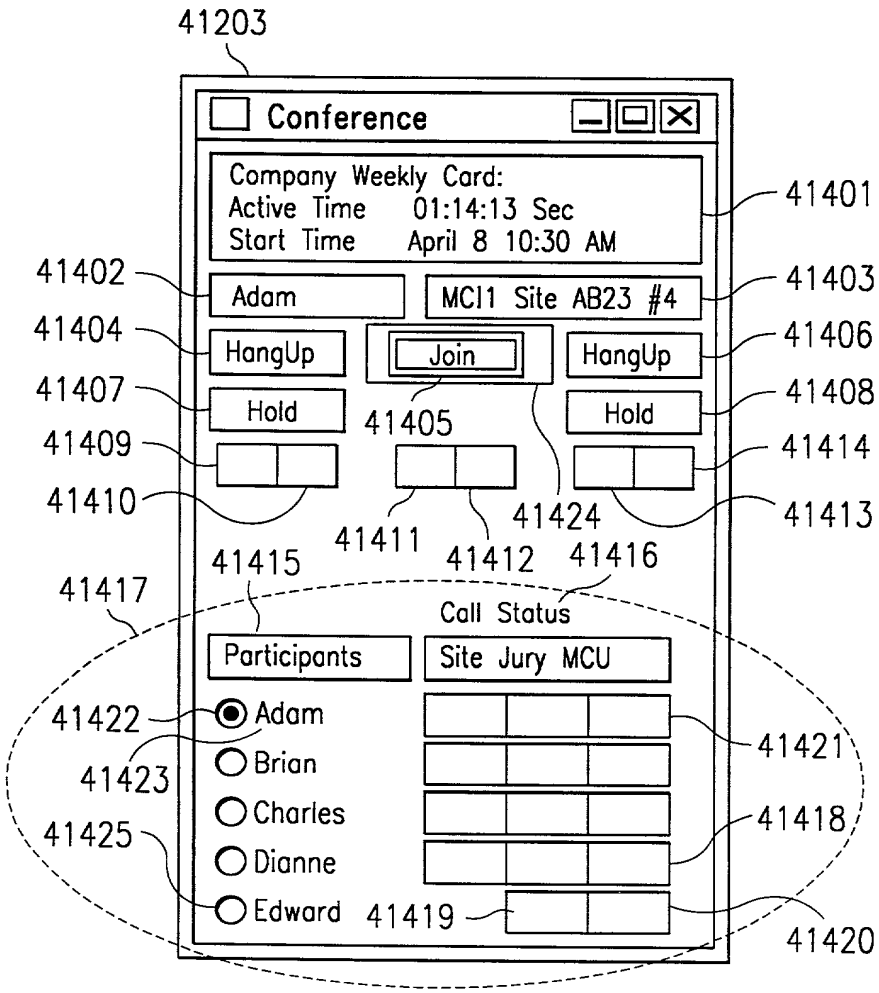


Docket No : VON-96-046-C1 Appln No : NOT ASSIGNED
Title: A System and Method for Providing Requested Quality of Service in a Hybrid Network
Inventors: ELLIOT et al
Sheets of Drawings 130 of 134



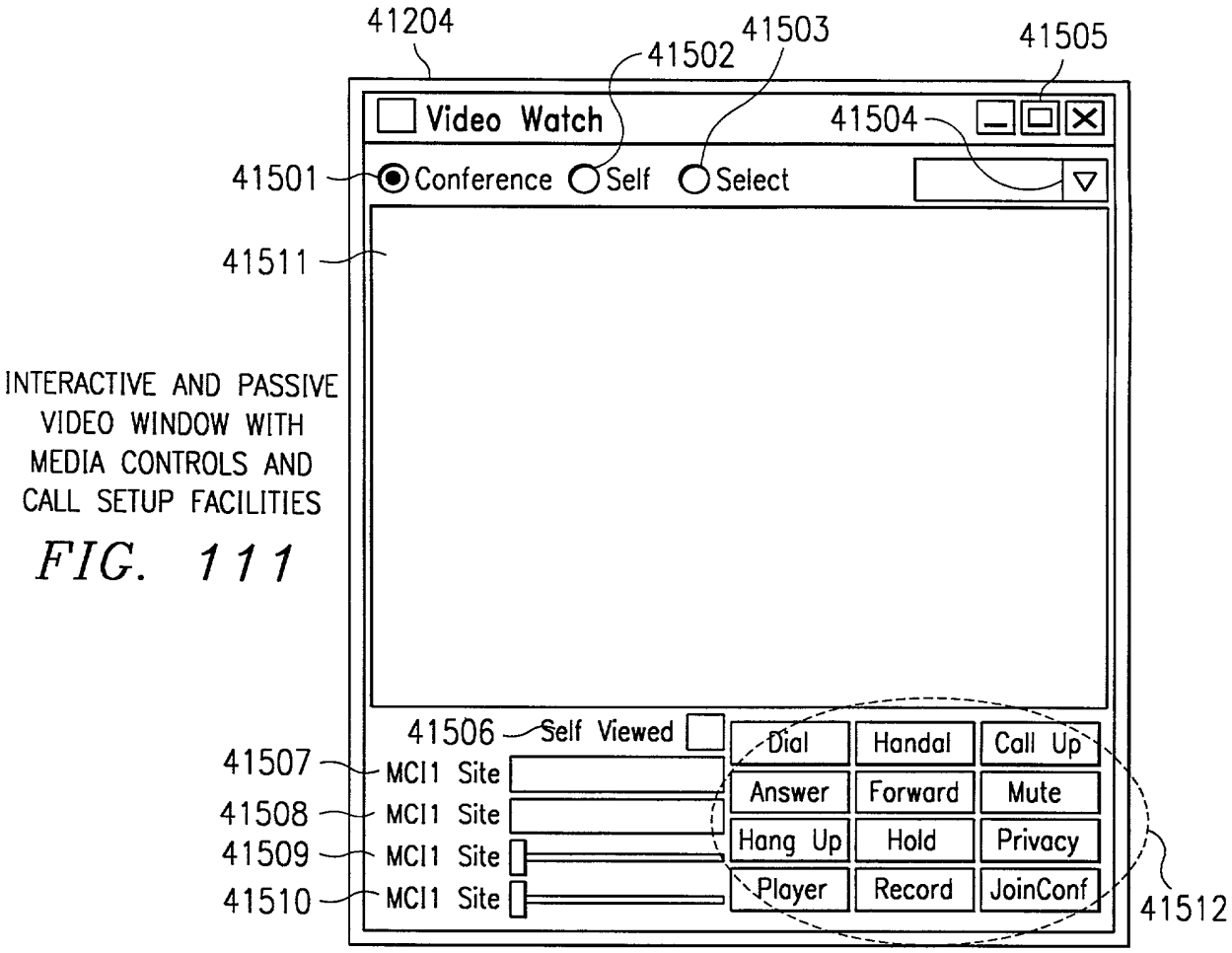
LIST OF CONFERENCES TO BE MANAGED BY CURRENT VIDEO OPERATOR

FIG. 109



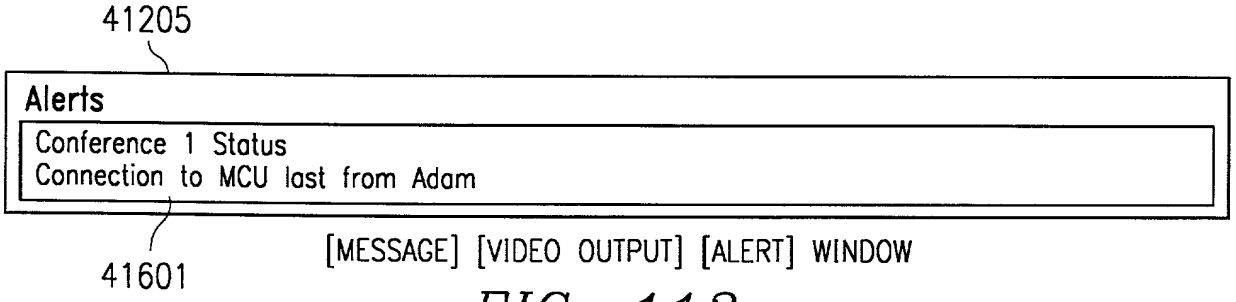
LIST OF CONNECTIONS FOR A CONFERENCE CALL AND CALL STATUSES, WITH CONNECTION OPERATIONS

FIG. 110



INTERACTIVE AND PASSIVE VIDEO WINDOW WITH MEDIA CONTROLS AND CALL SETUP FACILITIES

FIG. 111



[MESSAGE] [VIDEO OUTPUT] [ALERT] WINDOW

FIG. 112

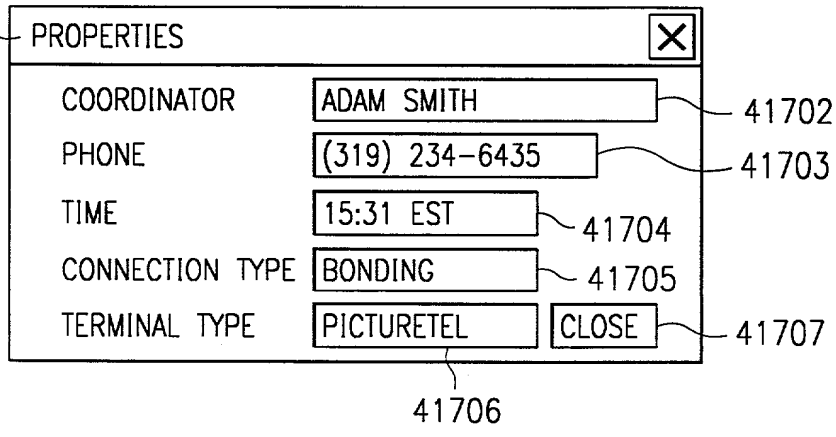


FIG. 113

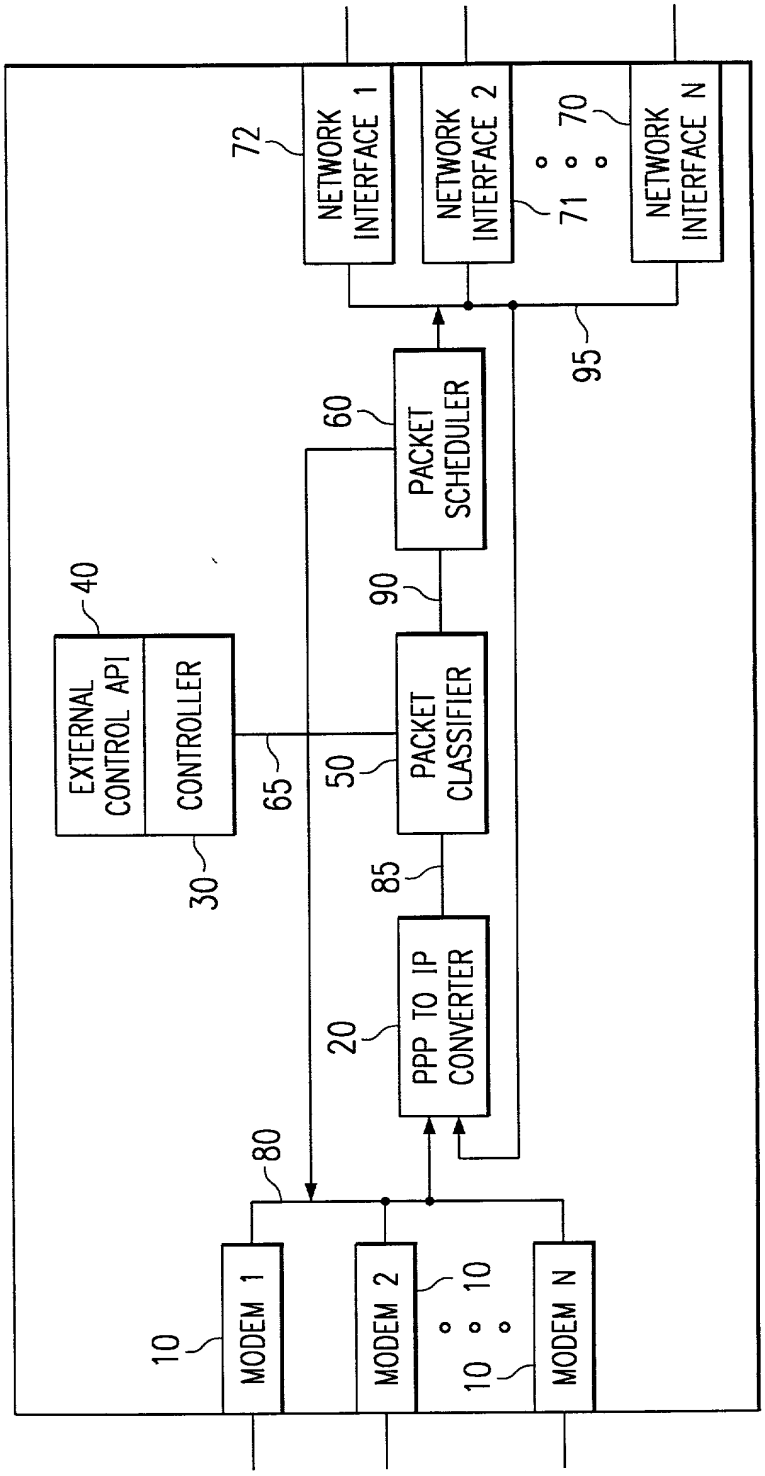

NETWORK INTERFACE 1
NETWORK INTERFACE 2
NETWORK INTERFACE N
72
71
70
95
PACKET SCHEDULER
60
90
EXTERNAL CONTROL API
CONTROLLER
40
30
65
50
PACKET CLASSIFIER
85
PPP TO IP CONVERTER
20
80
MODEM 1
MODEM 2
MODEM N
10
10
10

FIG. 114A

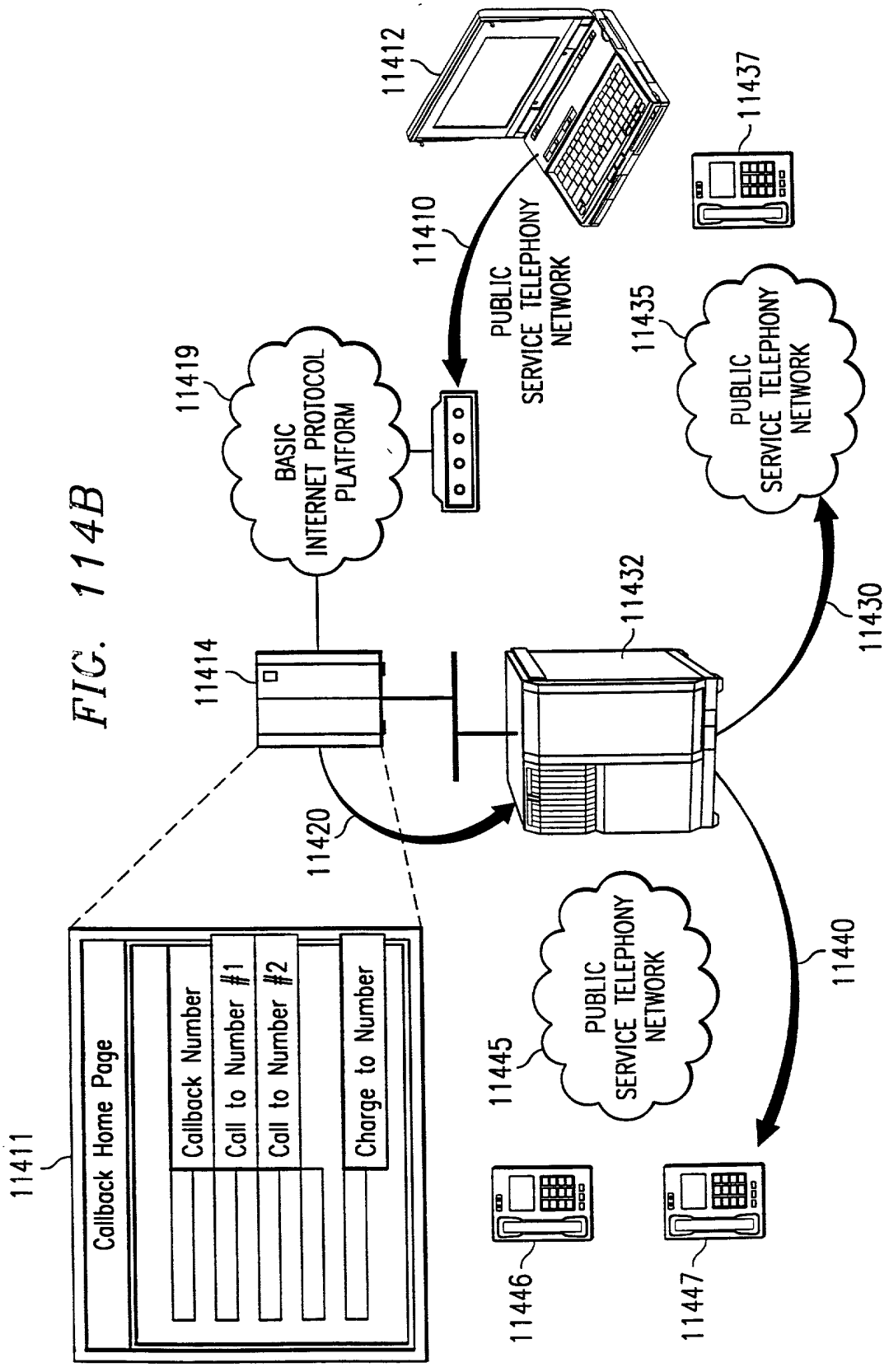

11412
11437
11410
PUBLIC SERVICE TELEPHONY NETWORK
11435
PUBLIC SERVICE TELEPHONY NETWORK
11419
BASIC INTERNET PROTOCOL PLATFORM
11414
11432
11430
11420
11440
PUBLIC SERVICE TELEPHONY NETWORK
11445
11411
Callback Home Page
Callback Number
Call to Number #1
Call to Number #2
Charge to Number
11446
11447

FIG. 114B